DOCUMENT RESUME

ED 199 261 TM 810 153

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TITLE Sourcebook of Measures of Women's Educational Equity.
INSTITUTION American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Women's Educational Equity Act Program.
PUB DATE Sep 79
NOTE 552p.

EDRS PRICE MF02/PC23 Plus Postage.
DESCRIPTORS Annotated Bibliographies; Educational Assessment; *Equal Education; *Evaluation Methods; *Females; *Measures (Individuals); *Resource Materials; Test Reviews; *Womens Education
IDENTIFIERS Womens Educational Equity Act

ABSTRACT

A wide variety of questionnaires, rating scales, inventories, interviews, checklists, and guidelines suitable for use in examining procedures, progress, and outcomes of educational equity programs and projects are presented for use by project directors, educators, and researchers. The Sourcebook may also be used as a reference for: (1) locating research studies related to women's educational equity; (2) identifying methods and ideas for project or program evaluation; (3) proposal writing; and (4) use by graduate students. The Sourcebook has four major parts. Part I provides information on its use, limitations, development, and background. Part II contains detailed instrument descriptions arranged by the following content areas: attitudes toward mathematics; awareness of sexism and racism; career awareness, choice, motivation, interest; institutional sexism; management and leadership characteristics and skills; materials assessment guidelines; self concept and self-esteem; sex role perceptions; and an "other" category which includes measures designed to assess personality, achievement motivation, etc. Part III contains an annotated bibliography of additional measures related to the content areas. Part IV contains a glossary of terms and four indexes. (RL)

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SOURCEBOOK OF MEASURES OF WOMEN'S EDUCATIONAL EQUITY

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Office of Education

American Institutes for Research
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SOURCEBOOK OF MEASURES OF WOMEN'S EDUCATIONAL EQUITY

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Women's Educational Equity Act Program (WEEAP)
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Patricia R. Harris, Secretary

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Office of Education

September 1979

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PREFACE

The Women's Program Staff within the Office of Education has consistently recognized and emphasized the importance of evaluation in fulfilling the mandate of the Women's Educational Equity Act. In awarding grants and contracts, attention has been focused on the grantees' provisions for validation studies, evaluation, and model building. In funding this Sourcebook project, the Women's Educational Equity Act had the following objectives:

- Provide a practical resource for WEEA project directors that will facilitate the comprehensive evaluation of projects working to achieve educational equity for women.
- Provide a useful resource to educators and researchers at large, to aid them in reducing or eliminating sex stereotyping and sex discrimination in educational programs.
- Provide a resource that will contribute to cumulative systematic research in women's educational equity.

At present, WEEA project directors and other educational practitioners are often forced to spend a great deal of time and effort in developing measurement instruments to evaluate the progress and outcomes of their programs. This is because information about assessment instruments appropriate for use with educational equity programs can be located only after extensively searching through many kinds of measurement compendia, research studies, publishers' catalogs, curriculum materials, and professional journals, where the instruments often appear as incidental items. Many useful instruments lie hidden away in isolated research studies, little known publishing houses, or nearly inaccessible reports.

The main purpose of this Sourcebook is to present project directors and other educators and researchers with a wide variety of questionnaires, rating scales, inventories, interviews, checklists, and guidelines suitable for use in examining procedures, progress, and outcomes of educational equity programs and projects.

We sincerely hope that this Sourcebook and its companion volume, Cross Cultural Differences in the Measurement of Attitudes, Interests and Perceptions Related to Educational Equity: A Research Monograph, meet these expectations.

Project Staff,
Sourcebook of Measures of
Women's Educational Equity

ACKNOWLEDGMENTS

The development of the Sourcebook of Measures of Women's Educational Equity has been a collaborative effort requiring the cooperation of many people: project staff, instrument authors and test publishers, testing and evaluation consultants, and an external advisory committee. Although it is impossible to name all contributors, a special appreciation and recognition is extended to all authors and publishers who permitted inclusion of their measurement instruments. All authors and publishers are cited in the instrument descriptions in the Sourcebook.

Special appreciation is extended to the members of the project's advisory panel, who were most helpful in their advice, suggestions and criticisms, and the members of the content validation panels, whose judgments served as the basis for inclusion of many of the instruments in the Sourcebook. Most of all we are grateful to our project monitor, Ms. M. Patricia Goins, and the Women's Program Staff of the U.S. Office of Education for providing the opportunity to produce the Sourcebook.

PART I

OVERVIEW

8

INTRODUCTION

This Sourcebook presents 198 descriptions of instruments deemed potentially useful for providing information about Women's Educational Equity Act (WEEA) funded projects and other activities attempting to eliminate sex stereotyping in educational programs, policies, and institutions.

Organization

The Sourcebook has four major parts. Part I is an overview of the volume providing information on its use, limitations, development, and background. Part II contains the detailed instrument descriptions arranged by content area. Frequently instruments are intended to measure variables in more than one content area. In such cases, the instrument's primary measurement variable was determined, and it was placed in the section for that content area. The instruments contained in this section are described as completely and objectively as possible. All authors or publishers of each instrument described in this section were contacted for information on availability of the measure and additional technical information. Instrument authors and publishers also reviewed the description of their particular measure for accuracy. In cases where instrument authors or publishers could not be reached, the instrument description was not included in Part II.

Part III of the Sourcebook is the bibliography of additional measures. This section contains short descriptions of instruments related to the major content areas. The bibliography is intended to enhance the value of the Sourcebook for researchers and project directors by referencing promising instruments that they may wish to investigate further. Generally, instruments included in this section are those for which authors were not available for additional information; or with inadequate or unavailable descriptive and technical information; or with no development or revision data within the last 15 years. Many instruments described in the bibliography of additional measures have been used in educational equity studies, projects, and programs.

Part IV contains a glossary of terms and four different indexes. The glossary defines some of the more technical terms and procedures mentioned in the instrument descriptions. The indexes serve to reference and cross reference instrument descriptions by title, author, content area, measurement variable or subject, and target population. Part IV also contains an instrument description matrix showing the designated target populations and content area of each description by title of the instrument.

A companion volume to the Sourcebook entitled "Cross Cultural Differences in the Measurement of Attitudes, Interests and Perceptions Related to Educational Equity: A Research Monograph," is also available. This monograph presents cross cultural displays of the responses of Black, White, Hispanic, and Asian college student populations to selected measurement instruments and assesses the psychometric adequacy of the instruments for different cultural groups. More than 1,500 California community college students and a comparison group of more than 400 New York community college students contributed to the empirical studies that are the focus of this monograph, conducted in the summer of 1978 and the spring and summer of 1979.

Background

The Women's Educational Equity Act (WEEA) was passed as part of the Special Projects Act of the Education Amendment of 1974, Public Law 93-380. The purpose of the WEEA program is to provide, through grants and contracts, educational equity for women in the United States. The WEEA regulations established three priority areas for general grants in the first year (1976) of operation: (1) modules on sexism in education; (2) programs for educational leadership; and (3) program development related to career preparation. In order to assist grantees in evaluating the effectiveness of this project, several contracts directly related to providing assistance in evaluation were awarded. As part of one of those contracts, a monograph describing 61 measurement instruments, a three volume display of instruments with a description of their essential characteristics, and a User's Guide now exist. These documents were prepared by AIR. Subsequently, a grant was awarded to AIR to develop a more complete sourcebook of measures which would include special target populations - bilingual persons, preschool children and teachers, racial minority populations, and persons in rural communities. This volume represents the final edition of the Sourcebook.

Purpose of the Sourcebook

In the broadest sense, measurement instruments are tools for collecting needed information. Accurate and timely information, whether it concerns behaviors, procedures, attitudes, or knowledge, is a valuable commodity for educators and other professionals committed to the development of human beings and improvement of their institutions. Educators, including project directors, need a cumulative record of what is happening in their educational programs. They need information about the changes that have taken place during a specific time period and about the internal and external factors that might be effecting such changes. Intelligent use of measurement instruments is one way to provide such information. The Sourcebook is designed to assist educators in locating suitable instruments for collecting information on their programs. The Sourcebook has a number of secondary uses as well. Based upon an evaluation of the Sourcebook by approximately 50 educators, researchers, and psychologists, the Sourcebook has already been used successfully for the following purposes:

- as a reference to locate research studies related to women's educational equity;
- as a reference for identifying methods and ideas for project or program evaluation;
- as a resource and reference for graduate students; and
- as a reference and resource for proposal writing.

SEARCH PROCEDURES

The effort to find measures for the Sourcebook involved four major steps: (1) determination and definition of common content areas; (2) determination of the target audience; (3) review of secondary information sources; and (4) survey of primary information sources. Each step is explained briefly in this section.

Content Areas

What kinds of instruments would be most useful to WEEA project directors and other educators committed to providing educational equity? Efforts to answer this question characterized the first part of the search to find measures for the Sourcebook. A thorough review of the literature and a detailed examination of the nature of WEEA funded projects were most productive in providing information. Both the content of research studies on women in education and the content of funded educational equity projects and programs fell consistently into approximately eight general categories as summarized below:

- Attitudes toward mathematics. Under this category, instruments were sought which were designed to assess anxiety in mathematics and attitudes toward the value of mathematics training.

- Awareness of sexism and racism. Under this category, instruments were sought designed to assess the extent to which individuals or groups are conscious of sexism or racism and also the extent to which individuals or groups are conscious of any existing discriminatory or biased policies, practices, behaviors, and attitudes.

- Career awareness, choice, motivation, interest. In this group, instruments were sought which are designed to measure (1) the extent to which individuals or groups are conscious and knowledgeable about a wide variety of careers; (2) career preferences and aspirations; and (3) career intentions and stimulus.

- Institutional sexism. Here, instruments were sought which are designed to assess discriminatory or biased policies and practices at the institutional level as opposed to the individual or group level.

- Management and leadership characteristics and skills. For this category, instruments were sought which are designed to assess (1) interests and attitudes in leadership or management positions; (2) diversity and distinctness of leadership skills; and (3) the nature and constitution of leadership skills.

- Materials assessment guidelines. Under this category instruments were sought which are designed to assess sex bias or sex stereotyping in textbooks, audio-visual materials, tests, school catalogs and brochures, and other eudcational materials.

- Self concept and self-esteem. This category called for instruments designed to assess (1) perceptions of individuals regarding their own self worth; (2) the extent to which individuals or groups define themselves as masculine, feminine, or androgynous; and (3) the extent to which individuals or groups see themselves as capable and productive.

- Sex role perceptions. Under this category, instruments were sought which are designed to assess perceptions of individuals and groups about appropriate roles for men and women in general and for themselves specifically.

During the search process, some instruments were found which did not fit clearly into any of the preceding categories. Many of these instruments seemed relevant to research and evaluation on women in education. Such instruments were placed in an "other" category in the Sourcebook. This category includes measures designed to assess different aspects of personality, factual knowledge of women's issues and the status of women, achievement motivation, interpersonal relations interaction and behavior, and fear of success.

Target Audience

In an effort to meet the needs of a very diverse audience, measures were sought which would be appropriate for use by or with preschool children, students at all levels from elementary through college, teachers and administrators at all levels, employees and employers, adults in general, parents, bilingual and bicultural groups, rural populations, and minority populations. Instruments which have been used or developed with racially diverse groups, rural populations or bilingual/bicultural groups were difficult to find. Project staff were successful in locating a few for each group. In an effort to remedy this paucity of data, the validation studies described in Volume II were completed. In this study, every attempt was made to locate subjects from these target groups and administer to them a set of five measures selected from the Sourcebook. Results show how different groups are likely to score on such measures. Other instruments described in the Sourcebook which have not been used specifically with these target groups may in fact be appropriate for them, but to this point remain empirically untested with different groups.

Secondary Information Sources

The third step in the search effort involved a complete review of secondary information sources for measures that fit the identified content areas and target populations. The review of secondary sources emphasized professional journals and existing research studies but included all of the following:

- Computerized searches and retrieval systems including Educational Resources Information Center (ERIC) and DATRIX II for dissertations and theses. This review resulted in the identification of studies and actual instruments for further investigation. Computerized printouts of the studies were retrieved and formal contact with the author was made for additional information and copies of the instrument.

- Professional journals. The search for instruments included an examination of issues from 1975 to the present of over 100 educational and research journals based on the identified content areas and target populations as primary descriptors.

- Research monographs, reference books, and text books. A variety of education texts and reference books was examined for mention or display of suitable measures.

- Test and measurement compendia. Compendia on tests and other measurement instruments were examined for relevant instruments.

- Educational test files. Test files from the following institutions were examined: Cubberly Education Library, Stanford University; Far West Laboratory for Educational Research and Development, San Francisco; Educational Testing Service, Princeton.

Primary Information Sources

In order to identify recently developed instruments and solicit additional suggestions of relevant measures, a primary information survey was designed which included the following:

- Test publishers. Approximately 68 commercial test publishers were contacted and queried about suitable instruments.

- University faculty. Major universities with recognized departments of graduate education or psychology were identified. Letters of inquiry were sent to 52 of them requesting information about measurement instruments related to educational equity.

- Authors. As soon as authors of relevant instruments could be identified through the different search techniques, they were sent letters requesting further information regarding a particular instrument. Every author or publisher was contacted prior to any final decision regarding inclusion of the instrument description in the Sourcebook. Authors were asked to suggest additional measures if possible.

- WEEA project directors. All current WEEA project directors were queried in regard to their knowledge about available measurement instruments.

- Related projects. AIR has conducted a number of projects related to educational equity. Each of these projects was reviewed for potential measurement instruments. These included projects involving career education, vocational education, and bilingual education.

The total search effort resulted in the collection of over 600 instruments along with descriptive or statistical information and data.

SELECTION OF INSTRUMENTS

Five criteria governed the selection of measures to be included in the Sourcebook. The five criteria are:

1. The measure must conform to one or more of the identified content areas as described in the last section.

2. The measure must be suitable for use with one or more of the identified target groups.

3. The measure must be available for use by other professionals. All authors of instruments described in complete form were contacted about availability of their measure. If an author indicated that an instrument was not generally available either through purchase or reproduction, it was not included. The instruments described in the bibliography of additional measures are generally available in articles or dissertations.

4. Enough information about the instrument must be available so that others may use it correctly. Particularly important here is information on administration and scoring. Only those instruments described in the bibliography of additional measures do not contain specific scoring and administration directions. For instruments in the bibliography, such information can be obtained or inferred by utilizing the reference provided. The reference is the source which explains the study or project in which the instrument was used.

5. Development information, including data on norms, reliability, and validity, was considered very desirable. Evidence of content validity was considered as the minimum criterion for inclusion in relation to technical information.

If extremely rigid technical standards had been followed, very few instruments might have been included. The purpose of the Sourcebook is to present as many potentially useful instruments as possible. Instruments which met all other criteria but had no specific data on their development were submitted to a panel for content validation. The panel consisted of ten educators with experience in evaluation and race and sex equity. The panel reviewed each designated instrument in terms of the following criteria:

- Purpose. Does the instrument seem to measure what it purports to measure? Does the instrument include a reasonable representation of concepts, knowledge, or perceptions of the intended measurement variable?

- Target population. Is the instrument suitable for the designated target group?

- Clarity. Are the items and format presented in a clear, readable fashion?

- Use. Are the directions for use, administration, and scoring adequate?

Instruments receiving low ratings by a majority of the panel were not included in the Sourcebook.

DESCRIPTION FORMAT

The instrument descriptions in the Sourcebook are intended to be as clear, informative, and objective as possible. Claims of instrument success, reliability, and validity are not made when unwarranted. The descriptions are not intended to be critical, judgmental, or evaluative. Determination of the potential usefulness of a measure, especially its adaptation to specific evaluative or research situations, is left entirely to the user of the Sourcebook.

For maximum usefulness, the descriptions of the instruments are designed to present the essentials in easily understood form. The data provided in the description will, in most cases, be sufficient for deciding whether to eliminate or select a certain instrument for a specific evaluation purpose. The format designed to provide this information includes all of the following in the order given: title, author, date published, measurement variable(s), target population(s), instrument type, instrument format, administration, scoring, description (reliability, validity, norms), availability, references, cross references. Each feature of the description format is explained briefly below.

- Title. The title of the instrument is provided at the beginning of each description.

- Author. All instrument descriptions begin with identification of author(s). Where there are multiple authors, all are listed in order of authorship. The author's current address is given when possible.

- Date published. The date of original publication is provided, as well as the dates of any revisions.

- Measurement variables. The instrument is classified by its measurement variables (or what it purports to measure), into one of several inductively identified categories.

- Target populations. The target population(s) for which the instrument is applicable is identified. Most instruments are applicable to all individuals within a certain age range. In some instances, an instrument is described as applicable only to certain groups within a given age range.

- Instrument type. Instruments are classified by instrument type, based on the nature of the information they provide.

- Instrument format. Instrument format refers to the way in which questions are asked and answered. Instruments are classified into one or more formats and their general layouts are described.

- Administration. Information is provided as to whether the instrument can be administered to a group or should be administered to one individual at a time, such as during the course of a structured interview. The potential user is also informed as to whether special training is necessary to administer and/or interpret the instrument.

- Scoring. Potential users are informed as to whether the instrument is to be hand scored or machine scored, what computer facilities are available if machine scoring is used, whether or not a scoring key is available, and what the scores tend to mean.

- Description. The description is divided into sections on the developmental history of the instrument, its reliability, validity and norms, which together summarize all relevant information presented in accompanying manuals, journal articles and technical reports. More exactly, the development section includes an explanation of the process used in the selection of items for the instrument, for example, whether items were selected on an a priori basis or on the basis of one or several factor analyses; the motivation or perceived need which led to the development of the instrument; the nature and extent of use of the instrument to date. Under the heading of reliability, the statistical evidence in regard to internal consistency and consistency over time are reported. Under validity, procedures used to validate the instrument are described. At a minimum, all instruments are described as having content validity, based on the judgment of experts that the instrument adequately reflects the domain of content it is supposed to measure and that item wording is appropriate to the age and educational level of the target population for which it is intended. Where additional studies have been conducted of the criterion and construct validity of the instrument, these are also described. Some instruments in the Sourcebook have established norms. Where normative data have been gathered, a section on norms is added to the instrument description and the populations for which norms are available are described.

- Availability. Potential users are directed to a source from which the instrument is known to be available. This source is usually the author or test publisher.

- References. Published and unpublished articles and reports describing the developmental history of the instrument and its use to date are cited. In those few instances where the instrument has been used in a large number of studies, a representative selection of references is included. Where the instrument has generated only a few publications, all are reported.

- Cross references. If an instrument has been described in another catalog of instrument descriptions or in another research study, this source is listed. In some instances, articles describing precursors of the instrument are included as cross references.

SUGGESTIONS FOR USE

Women's educational equity programs include a broad range of activities. As described in the previous sections, a number of different content areas have been identified as common across projects. The target population is made up of many different subgroups, and project goals include at least three different areas of activity: (1) program and curriculum development, (2) staff development, and (3) development of institutional and policy change. Such diversity requires that this Sourcebook provide a broad selection of instruments to meet many different needs.

This wide assortment of instrument descriptions may, at first glance, appear confusing. For this reason users are advised to follow certain procedures when consulting the Sourcebook. Before referring to the Sourcebook: (1) determine the purpose of testing or measuring, and (2) determine the variable (characteristics, behavior, attitude, function, attribute) to be measured.

Why Use a Measurement Instrument?

The reasons for measuring are many, but they generally fall into three broad classifications:

- Monitoring progress. An understanding of ongoing development and change in a program, product, or subject requires periodic measurement. Measurement along this dimension can provide answers to the following questions: Are goals and objectives being achieved? Are timelines being met? Do changes in strategy need to occur? Where are we in the project now and where do we need to go next?

- Assessing needs. In order to identify characteristics, behavior, or certain types of performance, a diagnostic assessment must take place. Such assessment can help answer the following questions: How are people actually functioning (as opposed to where they "think" they are functioning)? To what extent does sex bias influence educational policy? What are the characteristics of and reasons for certain types of behavior?

- Evaluating outcomes. To determine to what extent the project (or an activity) has achieved its designated objectives requires evaluative examination and testing. Evaluative testing answers broad-based questions appropriate for not only individual but group application as well. Did the program or product work more effectively with some groups of people? Did the program or product work better than other programs? To what extent did change take place? What happened? Was the program cost effective?

The measurement instruments in this Sourcebook have applicability in these three dimensions. If a user knows the specific reason for testing, instrument selection will be greatly facilitated.

Exactly What is to be Measured?

The Sourcebook will be of maximum value to the user who has defined exactly what characteristics, behavior, attitude, function, or other attributes are to be measured. To select helpful and appropriate measurement instruments it is not enough to know the project purpose. Based on the project objectives, one must formulate a set of evaluation objectives that specify (1) what kind of information will be accepted as convincing evidence of program success, and (2) what questions need to be answered. For example, Figure 1 shows a project whose main purpose is to reduce sex stereotyping in vocational education. The project may have several main objectives that can be translated into a number of evaluation questions to help determine the type of measurement needed.

FIGURE 1
INSTRUMENT SELECTION PLAN

Project to Reduce Sex Stereotyping in Vocational Education

Project Objectives	Evaluation Questions	Types of Measure Needed
1. Develop nonsexist occupational expectations among students	1a. Did women increase occupational aspirations and interests?	1a. Career interest inventory; career role identification inventory.
	1b. Did men increase acceptance of nontraditional occupational interests and aspirations of women? of men?	1b. Career role identification inventory; awareness of sexism questionnaire.
2. Develop nonsexist occupational expectations among faculty	2a. Did teachers/counselors increase acceptance of nontraditional occupational interests and aspirations of women? of men?	2a. Career role identification inventory; awareness of sexism questionnaire.
	2b. Did teachers and counselors adopt any sex affirmative practices?	2b. Behavior guidelines; institutional assessment observation instrument.
3. Develop nontraditional enrollment patterns.	3a. Did women increase their enrollment in nontraditional training programs?	3a. Comparison of past and present enrollment figures.
	3b. Did men increase their enrollment in nontraditional training programs?	3b. Comparison of past and present enrollment figures.

How Can an Instrument be Located in the Sourcebook?

Once a user has decided what is to be measured and for what purpose, the Sourcebook can be approached effectively in a number of different ways.

- Review the table of contents. The table of contents shows that instruments have been entered in the Sourcebook according to broad content areas. The user may identify the content area of greatest interest and search through the different instruments under that category. This approach, while allowing the user to become familiar with the types of instruments in a single category, may prove time consuming. In order to identify instruments for a specific purpose, the subject and population indexes should be used.

- Review the instrument matrix. Preceding the indexes, an instrument matrix appears that shows each instrument by title, by major content area, and by target population. If users are interested in a certain age level or target group, they should locate this group on the matrix and then note the instruments in each content area that are applicable to that particular group. The user must then turn to the title index to find the page numbers of the instruments they wish to review.

- Review the subject index. The subject index was developed by recording the measurement variables and key descriptors of each instrument. This index represents a breakdown of the content areas listed in the table of contents and, in addition, provides cross references for instruments that measure more than one variable. If the user knows the specific variable to be measured, that variable may appear in this index along with the page numbers of instruments related to the particular variable. If the variable does not appear in this index, the user is advised to look under words similar to or related to the original variable.

- Review the population index. This index is arranged by main subgroups of the total population. These subgroups are defined in the section on search procedures and are also listed in the instrument matrix preceding the indexes.

- Review the title and author indexes. A user may wish to locate an instrument for which either the title or the author is already known. Author and title indexes have been provided for this purpose.

- Review the glossary of terms. The glossary contains definitions of terms used in the instrument descriptions. The glossary may be most helpful when a user is ready to select a specific instrument from a number of identified possibilities. A clear understanding of exactly what an instrument does and how it has been used in the past will aid in the selection process.

Once an instrument of interest has been located in the Sourcebook, the description should be carefully examined to determine its potential usefulness for a specific research or evaluation purpose.

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PART II

INSTRUMENT DESCRIPTIONS

Attitude Toward Mathematics

DUTTON'S ATTITUDE SCALES

AUTHOR

Wilbur H. Dutton
1913 Greenfield Avenue
Los Angeles, California 90025

DATE DEVELOPED

1954, 1965, and 1968

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitude toward math

TARGET POPULATIONS

The 1954 and 1968 scales are designed for use with students in grades 3-6 and 7-9. The 1965 scale was designed for use with postsecondary students, especially prospective elementary school teachers.

INSTRUMENT FORMAT

The 1954 scale is a Thurstone-type scale containing 22 first-person statements. The 1965 scale, also Thurstone-type, contains 15 first-person statements, 12 of which also appear on the 1954 scale. The 1968 scale is a Likert-type or summated rating scale containing 25 third-person statements plus two open-ended questions. Half of the items are positive and half negative.

ADMINISTRATION

The scales are designed for group administration, and they may be read aloud to the students to avoid reading difficulties. On the 1954 and 1965 scales, subjects are asked to check all the statements with which they are in agreement. (See Dutton, 1956 and 1965 for administration instructions.) On the 1968 scale, the subjects are to check in an appropriate blank either 'strongly agree, agree, undecided, disagree, or strongly disagree' (Dutton and Blum, 1968). The term "new math" or "math" may be substituted for "arithmetic" in any of the scales.

SCORING

For the 1954 and 1965 scales, the author has assigned a scale value to each item from 1.0, showing greatest dislike for arithmetic, to 10.5, indicating extreme liking. (See Dutton, 1956 and 1965 for scoring instructions.) An individual score is the sum of the scale values of the items checked. For the 1968 instrument, ratings are assigned to each of the five responses on the scale and an average attitude index can be computed for each subject. (See Dutton and Blum, 1968 for scoring instructions.)

DESCRIPTION

Development. The 1954 scale was originally developed in 1951, based on techniques devised by L.L. Thurstone. It was first administered to a group of 226 boys and 233 girls enrolled in a junior high school in the Los Angeles area. The 1965 scale for prospective elementary school teachers was developed as part of a study to verify the following assumptions: (1) prospective elementary school teachers will enter courses in the teaching of arithmetic possessing different degrees of understanding of arithmetical concepts and with well established attitudes toward arithmetic; (2) these students can be given remedial instruction to help them overcome their deficiencies and improve their attitudes toward arithmetic. Most of the items on this scale are taken from the 1954 scale. The instrument is intended to measure student feeling toward the major aspects of elementary school arithmetic. The 1968 scale is in part an adaption of the 1954 Scale. It uses the strongest items from that scale, reworded as third-person statements. Other items were based on lists of aspects of the "new mathematics" most liked and disliked by students from junior high through college. Each item was then checked for ambiguity, length, and ability to discriminate between positive and negative feelings. The scale was then administered to a trial group and revised on the basis of the results.

Reliability. The reliability of the 1954 and 1965 scales, measured by test-retest methods, was .94. The reliability of the 1968 scale, determined by the Spearman-Brown test-retest coefficient, is .84.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

1954 Scale

A = Agree strongly
B = Agree
C = Undecided
D = Disagree
E = Disagree strongly

3. I am afraid of doing word problems.

15. I like arithmetic because it is practical.

1965 Scale

5. Working with numbers is fun.

11. I am completely indifferent to arithmetic.

1968 Scale

2. Arithmetic should be avoided whenever possible.

14. Arithmetic is necessary in daily life.

26. Two things I like about the new mathematics are: ____________________.

AVAILABILITY

The items from the three scales (not in test format and without administration and scoring instructions) are available from the author at duplicating cost plus postage. The instrument is copyrighted.

REFERENCES

Dutton, W. H. Attitudes of junior high school pupils toward arithmetic. School Review, 1956, 64(1), 18-22.

Dutton, W. H. Prospective elementary school teachers' understanding of arithmetical concepts. The Journal of Educational Research, 1965, 58(8), 362-365.

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Dutton, W. H. Another look at attitudes of junior high school pupils toward arithmetic. Elementary School Journal, 1968, 68(5), 265-268.

Callahan, W. J. Adolescent attitudes toward mathematics. Mathematics Teacher, December 1971, 751-755.

FENNEMA-SHERMAN MATHEMATICS ATTITUDE SCALES

AUTHORS

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University of Wisconsin
Madison, Wisconsin 53706

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scales

MEASUREMENT VARIABLES

Attitudes toward learning mathematics

TARGET POPULATION

The instrument is designed for students of junior high school age and older.

INSTRUMENT FORMAT

The Fennema-Sherman Mathematics Attitude Scales include the following nine scales: Confidence in Learning Mathematics (C); Mother (M), Father (F), and Teacher (T) scales measuring perceptions of attitudes toward one as a learner of math; Attitude Toward Success in Mathematics (AS); Mathematics as a Male Domain (MD); Usefulness of Mathematics (U); Mathematics Anxiety (A); and Effective Motivation in Mathematics (E). Each scale consists of six positively-stated and six negatively-stated items with a 5-point Likert-type response scale ranging from 'strongly agree' to 'strongly disagree'. The scales can be used separately or together in any combination, in which case the items from two or more scales would be randomly distributed into one instrument.

ADMINISTRATION

The scales are designed for self administration and can be given to group or individuals. Time required depends on the number of scales used, allowing 10-15 minutes per scale. Further information on development and use are given in the document cited in the references.

SCORING

The scales can be hand or machine scored and can be set up for use with machine scorable answer sheets. Further information on scoring or use of scores is available from the document cited in the references.

DESCRIPTION

Development. The Fennema-Sherman Mathematics Attitude Scales were developed to study attitudes toward mathematics in order to improve the learning of mathematics. The attitudes to be measured were those hypothesized to be related to the learning of mathematics by all students or to the cognitive performance of females.

Nine separate scale dimensions were defined, and items were written. Eighteen to 22 items per scale were selected for an initial pilot test. This 173-item test was administered to 367 subjects in grades 9-12 in a middle-class, suburban school. Both students taking math and those not taking it were included in the sample. Results from the pilot test were analyzed and final selection of items was made. The revised scales were subsequently administered in their entirety to math students from four Madison, Wisconsin, high schools in the winter of 1975, and to students in grades 6-8 in the winter of 1976.

Reliability. Split-half reliabilities for all nine scales ranged from .86 to .93 with a median of .88.

Validity. Content validity was established in developing the scales. Each scale dimension was defined, and item writers judged the validity of the other author's items. Items which were agreed upon as measuring an aspect of the dimension were selected with attention being given to covering the range of the dimension.

In the final selection of items, a certain degree of construct validity was assured. Items were selected based on pilot test statistics. Two criteria relating to construct validity were used: items that yielded results consistent with the theoretical constructs of the scale and items that differentiated math and non-math students were chosen. In addition, intercorrelations of the various scales show that while the scales are interrelated, each scale measures a somewhat different construct.

Additional Information. The document cited in the references provides additional data on the Mathematics Attitude Scales as follows: N's, F-values of grade by sex analyses of variance; intercorrelations among Mathematics Attitude Scales; results of principal components factor analysis; and descriptive statistics.

SAMPLE ITEMS

A = Agree strongly
B = Do not fully agree
C = Undecided
D = Disagree
E = Disagree strongly

Confidence in Learning Mathematics (C):

3. I am sure that I can learn mathematics.

Mother Scale (M):

9. My mother wouldn't encourage me to plan a career which involves math.

Attitudes Toward Success in Mathematics Scale (AS):

2. I'd be proud to be the outstanding student in math.

Mathematics as a Male Domain (MD):

8. When a woman has to solve a math problem, it is feminine to ask a man for help.

Mathematics Anxiety Scale (A):

5. I usually have been at ease during math tests.

Effective Motivation in Mathematics Scale (E):

7. Figuring out mathematical problems does not appeal to me.

AVAILABILITY

The scales were developed with National Science Foundation funds. Therefore, they are in the public domain and require no special permission for use or duplication. The authors do request, however, that proper authorship is credited. The instrument is available from:

Journal Supplement Abstract Service
American Psychological Association
1200 - 17th Street, N.W.
Washington, D.C. 20036

REFERENCES

Fennema, E., & Sherman, J. Fennema-Sherman mathematics attitude scales. Journal Supplement Abstract Service Catalog of Selected Documents in Psychology, 1976, 6(1), 31. (Manuscript No. 1225)

GENERAL ATTITUDES TOWARD MATHEMATICS

AUTHOR

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New Jersey Department of Education
Office of Evaluation
222 West State Street Annex
Trenton, New Jersey 08025

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitude toward mathematics

TARGET POPULATION

The instrument was designed for use with ninth grade students of both sexes.

INSTRUMENT FORMAT

The instrument is a 5-point Likert scale containing 25 items.

ADMINISTRATION

The scale is designed for group administration. Directions are printed on the instrument. Completion time is from six to ten minutes.

SCORING

The instrument is hand scored, and scoring directions are provided. Items are positively and negatively weighted; an individual score is the sum of the individual item scores.

DESCRIPTION

Development. A review of the literature was used to identify factors to be measured by the instrument. The original set of 37 items was designed to measure self concept and self-esteem, parental expectations, peer relationships, teacher appraisals by the learner as well as like or dislike of mathematics. Factor analysis of the data provided by 570 algebra and general mathematics students, in a field test of the instrument, yielded three factors explaining 31% of the variance: attitudes towards mathematics as a subject (Factor I), self concept, self-esteem and sex role (Factor II), parental expectations (Factor

III). Separate factor analyses of the responses of male and female students yielded different factor structures for each sex, as well as amount of variance explained by the factor, although the factors identified in each analysis are similarly described as attitudes toward mathematics as a subject (Factor I), parental expectations (Factor II), self concept and self-esteem (Factor III). The instrument was reduced to 25 items on the basis of factor analysis and cluster analysis of the data provided by the field test.

Validity. Some evidence of validity is provided by the results of the one study in which the instrument has been used, a study of mathematics attitudes and mathematics achievement of male and female ninth grade students. Analysis of variance and analysis of covariance, performed separately for general mathematics and algebra students, did not yield significant differences related to school, classes within school or sex, but did show that attitudes toward mathematics are related to achievement in mathematics.

SAMPLE ITEMS

SA = Strongly agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

1. Mathematics and arithmetic are my favorite subjects.

5. Math is not fun because I am not allowed to think for myself.

18. My parents expect me to do well in mathematics.

22. Albert Einstein, the great researcher and mathematician, could just as well have been a woman.

24. Boys generally do better in mathematics than girls.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Merkel-Keller, C. Sex differences in mathematics: An investigation of sex-differentiated attitudes towards mathematics and sex-differentiated achievement in mathematics on the ninth grade level in eight schools in New Jersey. Paper presented at the American Educational Research Association Conference, New York City, April 1977. (ED 143 933)

KULM MATHEMATICS SELF-CONCEPT TEST

AUTHOR

Gerald Kulm
Math-Science Building
Purdue University
Lafayette, Indiana 47907

DATE

1973

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitude toward math

TARGET POPULATION

The instrument is designed for college students of both sexes.

INSTRUMENT FORMAT

The Mathematics Self-Concept Test consists of 27 statements. Two questions are posed for each statement. The first question asks the respondent to express his or her attitude toward mathematics and calls for a yes/no answer. Answers are summed to form Scale 1, measuring self-concept. The second question asks about awareness of change in attitude over time and is answered on a 3-point scale (better/same/worse). Answers are summed to form Scale 2, measuring change in self concept over time.

ADMINISTRATION

The test is designed for group administration. Instructions are included. Respondents mark their answers to the two questions for each item on answer sheets or IBM cards.

SCORING

The test can be hand scored. Scoring instructions are not provided. However, numerical values can be assigned to answers, and a separate score can be calculated for the two scales by summing the answers for each.

DESCRIPTION

Development. The instrument was developed to assess specific aspects of self concept of students enrolled in a mathematics course for prospective elementary school teachers. It was designed for pre/post administration in order to assess the effects of an instructional program on self concept. A pool of items and the format were pilot-tested with a population similar to the target population, and the final 27-item form was devised.

Reliability. Alpha coefficients, based on administration to 250 subjects of whom 90% were female, are reported as .86 for Scale 1 and .88 for Scale 2.

Validity. Evidence of concurrent validity was obtained by correlating scores on the Mathematics Self-Concept Test with Scholastic Aptitude Test mathematics scores and with examination scores in the mathematics course. Significant positive correlations are reported for Scale 2 (awareness of change in self concept regarding mathematics), although the two scales correlate significantly with each other. These results are interpreted as suggesting that changes in self concept in relation to mathematics may occur independently of changes in achievement.

SAMPLE ITEMS

4. How often I take part in class discussions

Q-1 Am I pretty well satisfied with myself now?
Yes No

Q-2 Have I changed so far this semester?
Better Same Worse

18. How often I go ahead with problems on my own

25. How well I keep up with assignments

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage. Answer sheets are not provided.

REFERENCES

Kulm, G. The development of a mathematics self-concept test. Paper presented at the American Educational Research Association Meeting, New Orleans, Louisiana, February-March 1973. (ED 075 512)

MATHEMATICS ANXIETY RATING SCALE (MARS)

AUTHOR

Richard M. Suinn
Department of Psychology
Colorado State University
Fort Collins, Colorado 80523

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Mathematics anxiety

TARGET POPULATION

The instrument is designed for use with college students and other adults.

INSTRUMENT FORMAT

The MARS is a 98-item self-rating scale. Subjects decide how much they are frightened by the situation posed in each item and check a box under the appropriate scale heading, ranging from 'Not at all' to 'Very much'.

ADMINISTRATION

The MARS includes directions for the subjects, who are encouraged to work as rapidly as possible and to describe their anxieties as they currently exist. Group and individual administration are both possible. Approximately 45 minutes is needed to complete the scale.

SCORING

The MARS Information for Users describes hand scoring procedures. The author indicates that with a simple adding machine, the test may be scored in about 5 minutes per subject.

DESCRIPTION

Development. The MARS was developed as an assessment tool for identifying mathematics anxiety. A normative sample of 397 students at the University of Missouri included volunteers who were informed of the purpose of the study, which was to develop norms for the MARS. Additional data were collected from volunteer students who responded to announcements of a behavior therapy treatment program for mathematics anxiety.

The MARS was designed as a screening diagnostic tool for measuring mathematics anxiety, as a means for constructing anxiety hierarchies for desensitization, and as a research scale. During treatment, the MARS may be readministered to determine the subject's progress in therapy. Although originally standardized on a university sample, the MARS may be used with anyone suffering from mathematics anxiety, as a means of constructing anxiety hierarchies in desensitization therapy.

Reliability. Data from the normative sample (n = 397) provided a coefficient alpha of .97. Additionally, item total correlations for more than half of the items were greater than .50.

Test-retest coefficients for the MARS were calculated for two samples. The first sample (35 students from the normative sample) was retested seven weeks later, producing a Pearson product-moment correlation of .85. The second sample (119 students at Colorado State University) was retested after two weeks, producing a reliability coefficient of .78.

Validity. In three studies (Richardson & Suinn, 1971; Suinn, Edie, Nicoletti & Spinelli, 1970; Suinn & Richardson, 1971), scores on the MARS showed expected decreases after behavior therapy for mathematics anxiety. Before the therapy treatment, the subjects' mean score had been above that of the normal standardization sample (256.9 for 24 subjects in the therapy sample compared with 215.38 for the normative sample).

Brush (1977) administered the MARS to two groups of undergraduates at Wesleyan University. The first group (n = 109) also completed a questionnaire on their background in mathematics. The second group (n = 80) also completed the Suinn Test Anxiety Behavior Scale (STABS). In both groups, humanities majors showed higher mathematics anxiety than social science majors, who showed higher mathematics anxiety than physical science majors. The studies also showed an inverse relationship between high MARS scores and number of years of high school mathematics, number of terms of calculus, and grades achieved in high school mathematics. Higher MARS scores were positively correlated with dislike of mathematics, a self report of anxiety about the subject, the length of time such anxiety had persisted, and test anxiety as measured by the STABS.

Suinn, Edie, Nicoletti, and Spinelli administered the MARS and the mathematics section of the Differential Aptitude Test (DAT) with a 10-minute limit to the 119 subjects at Colorado State University. Since the DAT items were presented with an overhead projector, only 44 of the original 119 subjects were included in order to rule out those subjects at the back of the room, who might not have been able to see the items clearly. Correlations between the MARS and the DAT ranged from -.32 to -.35, producing the expected negative correlations and indicating that high anxiety as measured by the MARS is associated with low performance on DAT tasks.

SAMPLE ITEMS

The items in the questionnaire refer to things and experiences that may cause fear or apprehension. For each item, place a check in the box under the column that describes how much *you are frightened by it nowadays*.

NA = Not at all
L = A little
FA = A fair amount
M = Much
VM = Very much

		NA	L	FA	M	VM
3.	Having someone watch you as you divide a five digit number by a two digit number.	☐	☐	☐	☐	☐
10.	Totaling up a dinner bill that you think overcharged you.	☐	☐	☐	☐	☐
31.	Looking through the pages of a math text.	☐	☐	☐	☐	☐
53.	Taking an examination (quiz) in a math course.	☐	☐	☐	☐	☐
80.	Walking to math class.	☐	☐	☐	☐	☐
92.	Seeing a computer printout.	☐	☐	☐	☐	☐

AVAILABILITY

The instrument is copyrighted (1972) by Richard M. Suinn, all rights reserved. It may be purchased from:

Rocky Mountain Behavioral Science Institute
P.O. Box 1066
Fort Collins, Colorado 80521

REFERENCES

Brush, L. R. *A validation study of the Mathematics Anxiety Rating Scale (MARS)*. Report submitted to Wesleyan University, March 1977.

Richardson, F. C., & Suinn, R. M. A comparision of traditional systematic desensitization, accelerated massed desensitization, and anxiety management training in the treatment of mathematics anxiety. *Behavior Therapy*, 1973, *4*, 212-218.

Richardson, F. C., & Suinn, R. M. The Mathematics Anxiety Rating Scale (MARS): Psychometric data. Journal of Counseling Psychology, 1972, 19, 551-554.

Suinn, R. M. Mathematics Anxiety Rating Scale (MARS) Informational brief. Fort Collins: Rocky Mountain Behavior Science Institute, 1972.

Suinn, R. M. Mathematics Anxiety Rating Scale (MARS): Information for users. Fort Collins: Rocky Mountain Behavioral Science Institute, 1972.

Suinn, R. M., Edie, C. A., Nicoletti, J., & Spinelli, P.R. The MARS, a measure of mathematics anxiety: Psychometric data. Journal of Clinical Psychology, 1972, 28, 373-375.

MATHEMATICS ATTITUDE INVENTORY (MAI)

AUTHOR

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College of Education
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Minneapolis, Minnesota 55455

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes toward mathematics

TARGET POPULATION

The Mathematics Attitude Inventory (MAI) is designed for use with junior and senior high school students of both sexes.

INSTRUMENT FORMAT

The MAI consists of 48 items in Likert format. Responses are marked on separate answer sheets.

ADMINISTRATION

The MAI is designed for group administration. Directions are printed on the form. Administration time is approximately 20 minutes.

SCORING

The instrument may be hand or machine scored, depending upon the answer sheets used, and yields six scale scores. The six scales of the MAI measure (1) perception of the mathematics teacher, (2) anxiety toward mathematics, (3) value of mathematics in society, (4) self concept in mathematics, (5) enjoyment of mathematics, and (6) motivation in mathematics. Scoring procedures are described in a technical report accompanying the instrument.

DESCRIPTION

Development. The MAI was developed in connection with a large-scale evaluation project involving junior and senior high school students, under a grant from the National Science Foundation to the Minnesota Research and Evaluation Center. A rational procedure was used to identify eight constructs considered to reflect the multidimensional character of mathematics attitude, and 10 items were selected to form a preliminary Likert-type scale for each construct. One scale was eliminated following review by experts in test construction and mathematics education, and another was eliminated after pilot testing with 76 secondary school students. The items of the remaining six scales were subjected to two separate factor analyses, each based on data contributed by approximately 2,500 eighth- and eleventh- grade students. In both factor analyses, six empirical factors emerged which were considered to be identifiable with the six a priori scales developed by rational procedure. In the final version of the instrument, the six scales are scored in accordance with the results of the factor analysis, each scale containing from four to eight items.

Reliability. Internal reliability for the six scales, as measured by coefficient alpha, ranges from .68 to .89. Intercorrelations of the scales range from -.25 to .66.

Validity. Evidence for the construct validity of the MAI is based on the factor analyses in which six empirical factors emerged confirming the six a priori scales of the instrument. Some preliminary work has been conducted in order to obtain additional validity evidence by reference to external criteria (Sandman, 1974), but the results are considered to have limited meaning due to the difficulty in finding appropriate external criteria.

Norms. Norms for the six scales of the MAI are available by grade level (grades 8 and 11) and sex, based on scores contributed by approximately 5,000 students.

SAMPLE ITEMS

(Items are taken from the six scales; numbers refer to the scales as described above.)

(1) My mathematics teacher shows little interest in the students.

(2) I feel tense when someone talks to me about mathematics.

(3) Mathematics is helpful in understanding today's world.

(4) No matter how hard I try, I cannot understand mathematics.

(5) Mathematics is something I enjoy very much.

(6) I would like to do some outside reading in mathematics.

AVAILABILITY

The instrument, norms tables, scoring directions, and technical report are available at duplicating cost plus postage from Wayne W. Welch, Minnesota Research and Evaluation Center. The instrument is copyrighted.

REFERENCES

Sandman, R. S. The Mathematics Attitude Inventory: Construction and validation. Unpublished manuscript, University of Minnesota, 1978. (Available from author.)

Sandman, R. S. The development, validation, and application of a multidimensional mathematics attitude instrument (Doctoral dissertation, University of Minnesota, 1973). Dissertation Abstracts International, 1974, 34, 7054A-7055A. (University Microfilms No. 74-10, 626)

MATHEMATICS ATTRIBUTION SCALE (MAS)

AUTHORS

Elizabeth Fennema
Patricia Wolleat
Joan Daniels Pedro
School of Education
University of Wisconsin
Madison, Wisconsin 53706

Attitude Toward Mathematics

DATE

1978

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attribution of causes of success and failure in mathematics

TARGET POPULATION

The instrument is designed for use with high school students of both sexes.

INSTRUMENT FORMAT

This is a Likert-type scale and has two forms, MAS Algebra, and MAS Geometry. Each form contains a sample item plus eight four-part items. Each item describes an event followed by four possible causes for the event. The subject responds to each cause by marking a 5-point scale indicating agreement or disagreement with the possible cause of the event. Responses are marked on separate answer sheets. Four items have success events as stems and four have failure events. Instructions are available for modifying the scale for use with mathematics classes other than algebra and geometry.

ADMINISTRATION

The instrument is designed for group administration. Directions are printed on the form. Approximate administration time is 15 to 20 minutes. The authors caution that, because the format is not commonly used with high school students, it is important that the scale be carefully administered and the directions thoroughly explained to ensure adequate understanding. The test items themselves are written at or below the ninth grade reading level.

SCORING

The instrument is designed to be machine scored. It yields eight subscale scores: Success Task, Failure Task, Success Environment, Failure Environment, Success Effort, Failure Effort, Success Ability, and Failure Ability. For each subscale, the score is computed by summing the values assigned to the relevant items. A scoring key and directions are provided.

DESCRIPTION

Development. The MAS has both a theoretical and an empirical basis. Attribution theory provided guidelines for the categories of items to be included. Actual events and attribution statements, however, were obtained from high school students enrolled in mathematics classes, in order to ensure that the instrument would be relevant to the content domain of math and to the age of the intended subjects. Development began by asking 100 high school students enrolled in algebra and geometry courses to list events which to them indicated success and failure in learning of mathematics. In addition, they were questioned as to what caused each success or failure. On the basis of student responses, a preliminary questionnaire was developed, including eight failure and eight success event stems, each paired with four possible causes or attribution statements. To ensure content validity, these 64 statements were sorted by eight educational researchers familiar with attribution theory into four attribution categories. The preliminary version was administered to 490 high school students enrolled in algebra, geometry or advanced algebra in a suburban middle class high school. Responses were analyzed and items were selected for the final version on the basis of a priori criteria. These criteria include (1) low intercorrelation coefficients between the attribution statements within a cluster, which are considered desirable because each response alternative was designed to measure a different category of attribution; (2) largest standard deviations among attribution statements; (3) differences between sexes in the hypothesized direction of attribution statement means; and (4) anecdotal information derived from student comments.

In its final form, the MAS is composed of eight subscales with success and failure events paired with each of four attribution categories. The subscales are Success-Task, Failure-Task, Success-Environment, Failure-Environment, Success-Effort, Failure-Effort, Success-Ability and Failure-Ability. The Ability subscales include attributions stated in terms of having skill, talent, or being able to understand an idea. The Task subscales comprise attributions stated in terms of ease or difficulty of performance, or of other qualities of the particular mathematics performance being considered. The Effort subscales measure amount of time spent doing lessons or studying for exams, and degree of concentration or determination. The Environment subscales include success or failure attributions referring to forces beyond the control of the individual, yet not related to the task, such as effectiveness of the teacher or the helpfulness of the peer group. The final version of the MAS has been administered to 647 female and 577 male high school mathematics students.

Reliability. Subscale reliabilities, using Cronbach's alpha, range from .36 to .78.

Validity. Content validity can be inferred from the method used in constructing the MAS. A factor analysis of the final version of the MAS revealed that of three main factors with loadings of .40 or higher, the first two correspond to the success and failure dimension which had previously been shown to elicit different responses. The factor analysis may be regarded as providing construct validation as measured by the internal structure of the instrument.

Norms. Tables of standard scores, percentile rank scores, frequency and cumulative frequency, by sex, are available for each of the eight subscales. These descriptive statistics are based on the data obtained from 1,224 students in 10 urban, suburban and rural high schools in Wisconsin and Minnesota.

SAMPLE ITEMS

A = Strongly agree
B = Agree
C = Undecided
D = Disagree
E = Strongly disagree

Event F. You were able to understand a difficult unit of algebra.

21. The way the teacher presented the unit helped. A B C D E

22. Your ability is more obvious when you are challenged. A B C D E

23. You put hours of extra study time into it. A B C D E

24. The problems were easy because they had been covered before. A B C D E

AVAILABILITY

The instrument and accompanying description are available at duplicating cost plus postage from:

Joan Daniels Pedro, Project Director
Sex Equality in Math Education
Teacher Education Building
225 North Mills Street
Madison, Wisconsin 53706

REFERENCES

Fennema, E., Wolleat, P., & Pedro, J. D. Mathematics Attribution Scale: An instrument designed to measure students' attributions of the causes of the successes and failures in mathematics. Unpublished manuscript, 1978. (Available from Joan Daniels Pedro.)

MATHEMATICS STUDENT SURVEYS, QUESTIONNAIRES, OPINIONNAIRES, AND INTERVIEWS
(Fourth Grade, Ninth Grade, Twelfth Grade
and College Sophomore Levels)

AUTHOR

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DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale and opinion inventories

MEASUREMENT VARIABLES

Attitude toward Math (Subscales for the Questionnaires and Opinionnaires are confidence in doing mathematics and interest in mathematics; subscales for the Surveys and Interviews are future plans to study mathematics and career plans.)

TARGET POPULATIONS

The Surveys, Questionnaires, and Opinionnaires were designed for use with male and female students in grades 4, 9, 12, and the sophomore year of college. The Interviews were designed for use with _female_ students at the same grade levels.

INSTRUMENT FORMAT

This set of instruments contains four types of instruments:

(1) The Surveys consist of either five or six open-ended questions related to school and career plans and influences. The fourth grade survey is part of the questionnaire for that grade, not a separate instrument.

(2) The Questionnaires, which show some common items across grade levels, consist of from 22 to 30 true/false statements about beliefs or feelings about mathematics.

(3) The Opinionnaires contain from 22 to 25 statements similar to those in the Questionnaires. The items are in Likert type format. The Opinionnaires are for grades 9, 12, and college sophomore.

(4) The Interview guides contain from 12 to 14 open-ended questions mainly related to sex differences in treatment of mathematics students and to career influences.

ADMINISTRATION

The Surveys and Questionnaires are designed for group administration. Directions are printed on the instruments. Approximate time for completing the Survey is five minutes, and for the Questionnaires about 20-30 minutes. The Interviews are individually conducted, and the estimated time for an interview is one hour. Instructions or guidelines for interviewers are not provided.

SCORING

The Fourth Grade Survey, Ninth Grade Questionnaire, Twelfth Grade Questionnaire, and College Sophomore Questionnaire contain items keyed to measure Confidence in Doing Mathematics. The Fourth Grade Survey, Ninth Grade Opinionnaire, Twelfth Grade Opinionnaire, and College Sophomore Questionnaire contain items keyed to measure Interest in Mathematics. All the keyed items are scored by summing the responses. A scoring key is provided with the test materials. A score in the top 25% on a scale is defined as indicating confidence or interest. Guidelines for interpreting the Interviews are not provided.

DESCRIPTION

Development. The Questionnaires and Opinionnaires were developed to investigate mathematical confidence and interest in males and females at four different grade levels. The first stage in development involved interviewing students at each grade level and writing items which required open-ended responses. Next, these questionnaires were administered to another sample of students, and from their responses 35-item Likert scale questionnaires were developed for each level. These instruments were administered to pilot groups, and the most discriminating items at each level were selected for the final 22-item versions. The Surveys were designed to investigate students' future plans to study mathematics and to pursue mathematical careers. The questions were developed with the assistance of mathematicians, educators, and psychologists. The Interview questions were formulated by the project consultants and were designed to elicit both quantitative responses and explanations for the answers given. Interview schedules for Mathematicians and Teachers were also developed by the author of this study.

Reliability. Split-half reliability is reported for the Questionnaires and the Opinionnaires for each grade level for both the confidence and the interest scales. Reliability coefficients varied from .69 (fourth grade, Confidence; n=121) to .92 (college sophomore, Interest; n=173).

Validity. The items were reviewed by a selected group of mathematicians, mathematics educators, and psychologists at the University of Cincinnati, and their combined judgments provide the basis for inferring the content validity of the instruments. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

(Fourth Grade Survey)

	Yes	?	No
12. I get bored doing math for a long time.			
27. I know more math than most kids my age.			

(Ninth Grade Questionnaire)

SA = Strongly agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly disagree

5. I learn mathematics rapidly and easily.

(Ninth Grade Opinionnaire)

10. My ability in mathematics helps me to solve real life problems.

(Twelfth Grade Questionnaire)

1. I usually understand a new topic the first time it is explained.

(Twelfth Grade Opinionnaire)

4. I would like to achieve fame by solving an unsolved mathematics problem.

(College Sophomore Questionnaire)

4. I see no value in studying the relationships among various branches of mathematics.

(College Sophomore Opinionnaire)

7. I can draw upon a wide variety of mathematical techniques to solve a particular problem.

(Ninth/Twelfth Grade Survey)

1. List the career or careers which you are currently considering. Be specific as you can.

(Fourth Grade Girls' Interview)

5. Is there any difference in mathematical ability between boys and girls?

(Ninth and Twelfth Grade Girls' Interview)

6. Is math less feminine than art? English?

(College Sophomore Interview)

7. Has the possibility of discrimination against women influenced your thinking about a future career? In what way?

AVAILABILITY

The package of instruments is available as an appendix to the reference cited below. The report may be obtained from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Levine, M. Identification of reasons why qualified women do not pursue mathematical careers (Final Report submitted to the National Science Foundation, Grant No. GY-11411). Cincinnati: University of Cincinnati, Department of Mathematical Sciences, August 1976.

TOCCO PERCEIVED PARENTAL ATTITUDES

AUTHOR

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Pinellas County Public School System
P. O. Box 4688
Clearwater, Florida 33518

DATE DEVELOPED

1971

Attitude Toward Mathematics

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Students' perception of parents' attitudes toward mathematics

TARGET POPULATION

The instrument is designed for use with students of junior high school age.

INSTRUMENT FORMAT

The instrument consists of 11 items, 10 of which are in multiple choice format. One item asks respondents to rate their parents' attitudes toward math on a scale of 1 to 5.

ADMINISTRATION

The instrument is designed for group administration. Instructions are printed on the form. Approximate administration time is 15 minutes.

SCORING

The instrument is not designed to yield individual scores. Responses are to be analyzed for the total parent group, and for mothers and fathers separately. Scoring instructions are not provided, but it appears that a score is calculated by summing scale points assigned to each item.

DESCRIPTION

Development. The scale was developed as part of a larger correlational study designed to examine attitudinal factors affecting mathematics achievement in junior high school. The items were constructed to measure the perception of parental attitudes toward mathematics, parental views of the respondent's progress in mathematics, degree of parental willingness to help with mathematics homework. The instrument has also been used in a correlation study of socioeconomic status, student attitudes toward mathematics, and student perception of parental attitudes toward mathematics.

Validity. Support for the validity of the instrument is provided by the pattern of significant findings obtained in one correlational study using the instrument. This study, involving an n of 150, found significant relationships between student attitudes toward mathematics and perception of mother's attitude ($r = .39$, $p<.01$), perception of father's attitude ($r = .30$, $p<.01$), total parental attitude ($r = .42$, $p<.01$). These correlations were also significant at the .05 level or better when the data were analyzed separately for males ($n = 77$) and females ($n = 73$). Perceived parental attitude was not significantly correlated with achievement in mathematics or with socioeconomic status.

SAMPLE ITEMS

1. My mother has tried to help me with my mathematics homework:

   A. Many times
   B. Few times
   C. Never or almost never

4. My father

   A. Greatly likes mathematics
   B. Likes mathematics
   C. Neither likes nor dislikes mathematics
   D. Dislikes mathematics
   E. Greatly dislikes mathematics

7. What word best describes your mother's feelings about your progress in mathematics?

   A. Overjoyed
   B. Satisfied
   C. Unhappy
   D. Very dissatisfied
   E. Doesn't care

AVAILABILITY

The instrument is available on microfiche from the ERIC Document Reproduction Service, P. O. Box 190, Arlington, Virginia 22210. It is also available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Tocco, T. Student attitudes, perceived parental attitudes, and socioeconomic status as predictors of junior high school mathematics achievement. Paper presented at the 49th Annual Meeting of the National Council of Teachers of Mathematics, Anaheim, California, 1971. (ED 052 017)

WOMEN IN MATHEMATICS ATTITUDE SCALE

AUTHORS

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Attitude scale, self-report questionnaire

MEASUREMENT VARIABLES

Math anxiety, attitudes toward math, sex-role stereotyping

TARGET POPULATION

The instrument is designed to be used with 13- and 17-year-old students of both sexes.

INSTRUMENT FORMAT

The instrument package consists of attitude scales and individual items addressing factors relating to the problems of women's participation in mathematics. The scales include: (1) sex-role stereotyping; (2) mathematics as a male domain; (3) confidence in mathematics; (4) anxiety in mathematics; (5) enjoyment of mathematics; (6) usefulness of mathematics to the individual; (7) teacher differential treatment of males and females in mathematics class; (8) teacher encouragement in mathematics; 9) father's encouragement in mathematics; (10) mother's encouragement in mathematics. All scales are in Likert-type format. The individual sets of items attempt to measure the influence of (1) encouragement by peers, counselors and parents to take more mathematics; (2) relative importance of different factors influencing the decision to take more mathematics, and (3) factors influencing career choice. These items consists of a mixture of open-ended, multiple choice and yes/no questions.

ADMINISTRATION

The instrument is designed for individual or group administration. Administration instructions include directions for responding to the Likert-type scales. Approximate administration time for scales and individual items together is 45 minutes.

SCORING

The instrument is designed for hand or machine scoring. A five-option machine scorable answer sheet can be used for nearly all items. Items are scored from 1 to 5, and the direction of polarity for each attitude item is given. Individual scores are computed by summing individual items to produce scale scores.

DESCRIPTION

Development. The development of the Women in Mathematics Attitude Scales began with a review of the literature, leading to identification of factors (variables) affecting women's participation in mathematics and of existing instruments to measure these variables. The identified factors and existing instruments served as the basis for the development of individual items and scales. These were reviewed and revised by an internal advisory panel, project staff, and external consultants before field testing on approximately 500 eighth graders and 500 twelfth graders. The data provided by these subjects were analyzed by an item analysis program and a factor analysis program. Factor analysis was used to differentiate three scales described as confidence, anxiety and enjoyment in the "Mathematics and Oneself" category. In addition, the scales were revised to include items based on high item to scale correlation for both ages and both sexes (to increase scale reliability) and on a high standard deviation (indicating variability in response) for both ages and both sexes. The revised scales were subjected to another field test, on 900 eighth and eleventh graders, another item analyses was performed, and the weaker items identified in this analysis were rejected. Logical analysis also entered into the final selection of items in that consultants, staff, and advisory board members reviewed the instrument to assure that various aspects of variables were represented in the scales.

Reliability. A Hoyt internal consistency reliability was determined for all scales. Hoyt reliabilities range from .80 to .92 for the ten scales in preliminary field testing data. Final scale reliabilities based on a national sample are also reported for each scale.

Validity. Items and scales were reviewed by nationally known experts in mathematics, mathematics education, psychology, sociology, counseling, and education to establish content validity. Each item was reviewed for face validity, appropriateness for the scale, appropriateness for the age group, and clarity. Evidence of construct validity based on internal structure is provided by the results of a factor analysis which yielded three highly intercorrelated but separate factors of mathematics confidence, anxiety, and enjoyment in the "Mathematics and Oneself" category. Some evidence of concurrent validity is provided by a small validation study in which teacher ratings of students were correlated with students' scale scores on the three variables of enjoyment, anxiety, and confidence. Correlations between teacher ratings and student scores ranged from .39 to .70 for confidence, .26 to .50 for anxiety, and .20 to .61 for enjoyment. Validation studies for the other scales are planned.

Attitude Toward Mathematics

SAMPLE ITEMS

SD = Strongly Disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly agree

1. If a man and a woman are equally qualified for a job, the man should get hired. SD D U A SA

2. Mathematics is important to my future educational plans. SD D U A SA

3. I can get good grades in mathematics. SD D U A SA

4. How much mathematics do you think is needed to get into the career you have chosen?

    A. None
    B. Some high school mathematics
    C. Four years of high school mathematics
    D. Some college mathematics
    E. A lot of college mathematics

How important was each of the following factors in deciding whether or not you took more mathematics courses in high school than are required? The answer choices are "Not Important at All," "Not Important," "Undecided," "Important," and "Very Important."

A = Not Important at All
B = Not Important
C = Undecided
D = Important
E = Very Important

5. What your mother thought A B C D E

6. What your father thought A B C D E

7. What your school counselor thought A B C D E

8. What your mathematics teacher thought A B C D E

9. How much you liked or disliked mathematics A B C D E

10. How good or bad you were in mathematics A B C D E

11. How useful you thought mathematics would be in getting into college or getting a job A B C D E

AVAILABILITY

The instrument is available from the first author at duplicating cost plus postage.

CHASEN DIAGNOSTIC SEX ROLE BIAS SCALE (DSRB)

AUTHORS

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role stereotyping in standards of mental health

TARGET POPULATION

The instrument is designed for use with clinicians, counselors, teachers, and administrators.

INSTRUMENT FORMAT

The Diagnostic Sex Role Bias Scale (DSRB) contains 10 case history descriptions of pre-adolescent students (ages 8-10) to be rated on the following four 7-point scales:

(1) Assessment of Health/Pathology - rated from 'extremely unhealthy' to 'extremely healthy'

(2) Assessment of the priority of the referral - rated from 'do not see any problem here' to 'refer to school psychologist; urgent'

(3) Treatment Recommended - rated from 'none to 'extensive psychotherapy'

(4) 'With no treatment, what is your prognosis for this child, as an adolescent?' - rated from 'extremely unhealthy to 'extremely healthy'

The respondent marks any appropriate point on the 7-point scale.

ADMINISTRATION

The DSRB can be administered to groups or individuals, and directions are printed on the instrument. Administration time is approximately 45 minutes to one hour.

SCORING

The instrument is hand scored and yields scores in a stereotypic, counterstereotypic, or equal direction. Scoring procedures are described in the DSRB Description Form.

DESCRIPTION

Development. The DSRB was designed to measure whether clinicians and others (e.g., teachers) have stereotypic sex role standards of mental health for girls and boys. In completing the scale, clinicians, teachers, parents, or administrators are asked to give mental health diagnosis of active and passive girls and boys. Development of the DSRB was based on the literature on sex stereotyping exemplified by Broverman, et al. (1970). The normative sample included 120 school psychologists (61 female, 59 male) at the National Association of School Psychologists convention in New York City in March 1973.

Reliability. A random sample of 10 school psychology and accounting students were retested about three to four weeks after the first testing, yielding a reliability coefficient of .71.

Validity. A panel of five school psychologists rank ordered sex-unspecified case histories in terms of their severity. If cases were truly equivalent, rank orders would be randomly distributed among experts. Since results were mixed, some case histories were revised. The panel labeled cases as independent or dependent, aggressive or non-agressive, and active or passive, and achieved 100% accuracy of assignment to categories.

A second validation panel of 10 experts (five female and five male school psychologists) rated each case history (again sex-unspecified) on a 9-point scale from 'in perfect mental health' to 'psychotic'. Statistical analyses were performed on the cases to determine if they differed from each other by more than chance. Results suggested that differences were probably due to chance, and one can infer that the paired cases, the two pairs within each category, and the active/passive domensions are similar in severity.

Three criterion groups were used for a discriminative validity study. These groups included 17 female school psychology students, 15 male medical students, and 21 male accounting students. A comparison of mean DSRB scores for the three groups shows them to be in the expected direction. A one-tailed t test was significant at the .07 level between school psychology and accounting students.

SAMPLE ITEMS

4. Ethel, 10 years old, gets into frequent fights. She frequently throws things when angry. She breaks things when upset. She is not at all uncomfortable about aggression. She uses very harsh language. She gets angry and hostile when not winning at competitive games, and turns on the winner. She seems to really enjoy besting classmates at games.

a. Assessment of Health/Pathology:

1........2........3........4........5........6........7

Extremely Unhealthy	Very Unhealthy	Moderately Unhealthy	In some Ways Healthy, In Some Ways Unhealthy	Moderately Healthy	Very Healthy	Extremely Healthy

b. Assessment of the Priority of the Referral:

1........2........3........4........5........6........7

Do Not See Any Problem Here	Slight Problem; Not Serious Enough for Referral	Possible Referral; Conference With School Staff	Refer to School Psychologist; Low Priority	Refer to School Psychologist; Medium Priority	Refer to School Psychologist; High Priority	Refer to School Psychologist; Urgent

c. Treatment Recommended:

1........2........3........4........5........6........7

None	Parent or Teacher Advisement	Environmental Manipulation	Short Term Counseling	Long Term Counseling	Psychotherapy	Extensive Psychotherapy

d. With no treatment, what is your prognosis for this child, as an adolescent?

1........2........3........4........5........6........7

Extremely Unhealthy	Very Unhealthy	Moderately Unhealthy	In Some Ways Healthy, In Some Ways Unhealthy	Moderately Healthy	Very Healthy	Extremely Healthy

AVAILABILITY

The instrument is available from Barbara Chasen at duplicating cost plus postage. A microfiche (MF #008000) is also available from:

Tests in Microfiche
ETS Test Collection
Educational Testing Service
Princeton, NJ 08540

The author should be contacted for permission to use the instrument and would like copies of studies involving the DSRB.

REFERENCES

Chasen, B. Diagnostic sex role bias and its relation to authoritarianism, sex role attitudes and sex of the school psychologists. Dissertation Abstracts International, 1974, 35, (5).

Chasen, B. G., & Weinberg, S. L. Diagnostic sex role bias: How can we measure it? Journal of Personality Assessment, 1975, 39, (6), 620-29.

Chasen, B. Diagnostic sex role bias and its relation to authoritarianism, sex role attitudes, and sex of the school psychologist. Sex Roles, 1975, 1, (4), 355-368.

CROSS REFERENCES

Johnson, O. G. (Ed.) Tests and measurments in child development: Handbook 2 (Vol. 2). San Francisco: Jossey-Bass Publishing Co., 1976.

CHECKLIST FOR SEX FAIR TEACHING BEHAVIORS

AUTHOR

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DATE DEVELOPED

1977

Awareness of Sexism and Racism

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Sex stereotyping behavior of teachers

TARGET POPULATION

The instrument is designed for use by vocational educators and other teachers and counselors at the high school or community college level. The instrument has also been used with vocational education students.

INSTRUMENT FORMAT

This checklist consists of 20 Likert-type statements about sex fair teaching behaviors.

ADMINISTRATION

This self-evaluation is self-explanatory, and no directions are provided. Approximate time for completing the checklist is 10 minutes.

SCORING

Scoring procedures are left up to the individual user. A machine-scorable form for students to report the sex-biased and sex-fair behavior of teachers is available.

DESCRIPTION

Development. The instrument is one of several included in a sourcebook developed under the auspices of the Office of Occupational and Continuing Education, New York State Education Department, as a self-study guide for vocational educators. Items for this and other instruments in the sourcebook were prepared with the assistance of vocational educators and reviewed by several faculty members of the New York State College of Human Ecology. These procedures were considered appropriate by the author for establishing the content validity of the instrument. Initial reliability and validity has been established for the student form, and this information is available from the author.

SAMPLE ITEMS

In my teaching I:	Always	Usually	Do Not
1. Provide the same course content for students of both sexes.	___	___	___

13. Establish and apply the same grading system to students of both sexes (not 'allowing' for one sex to be less capable).	___	___	___
18. Help students identify sex discrimination and stereotyping in their education and personal lives.	___	___	___

AVAILABILITY

The instrument is available in the reference cited below. The author will provide the packet of instruments and additional information at duplicating cost plus postage.

REFERENCES

Community Service Education Department, New York State College of Human Ecology. Expanding adolescent role expectations. Information, activities, resources for vocational educators. Ithaca, New York: Cornell University, 1977. (ED 147 544)

CHILDREN'S PERCEPTIONS OF SEX STEREOTYPING IN ELEMENTARY SCHOOL

AUTHOR

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South Bend, Indiana 46615

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Children's perceptions of teacher behavior regarding sex-role stereotyping

TARGET POPULATION

The instrument is designed to be used with elementary school children in grades 2-6.

INSTRUMENT FORMAT

The instrument consists of 18 questions on sex-appropriate roles in the classroom. Students respond by marking a box on a multiple-choice answer sheet which visually represents the following responses: 'only girls,' 'mostly girls,' 'both boys and girls,' 'mostly boys,' or 'only boys'. The answer sheet also directs students to indicate their sex and race (black, white, or other).

ADMINISTRATION

The instrument is designed for group administration and requires approximately 30 minutes for completion. Respondents receive an answer sheet of the type described above and place an "X" on the appropriate picture as questions are read to them by the administrator. The method of administration is described in a paper presented by the author (Sheridan, 1977). Written directions are not printed on the questionnaire or answer sheet.

SCORING

The instrument is designed to yield scores to make comparisons between groups. Scores could be calculated by assigning points (1-5) to each item and summing across items. A scoring key is not provided.

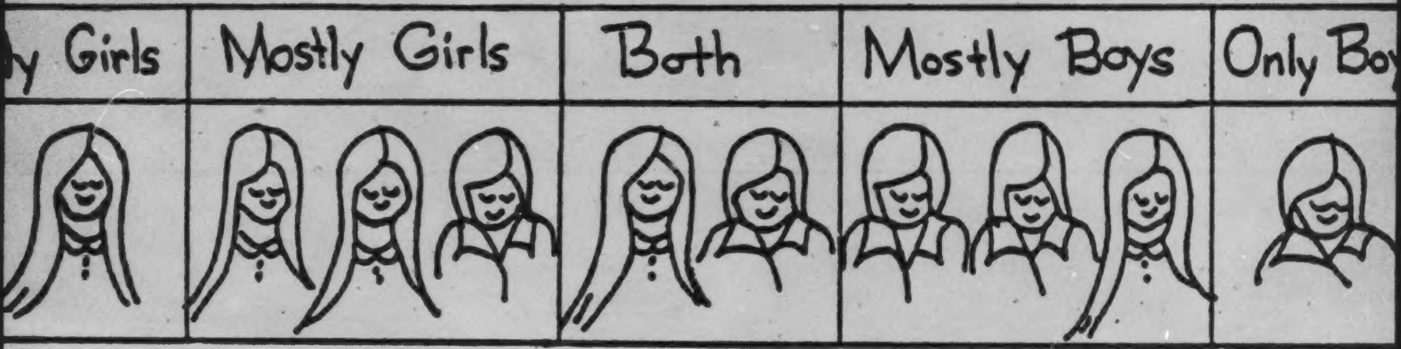
DESCRIPTION

Development. During workshop sessions, teachers were asked to report on stereotypic behaviors they had observed in the classroom. These reports produced 40 types of behaviors which were then represented as questions in a pilot-test version of the instrument. The pilot-test results yielded 18 common themes within the original set of items. These items, transformed into questions, became the final set of instrument items.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

Awareness of Sexism and Racism

SAMPLE ITEMS



1. Which students does the teacher ask to carry books?

2. Which students get paddled more?

9. Which are the smartest students in your class?

11. Which students do teachers like best?

AVAILABILITY

The questionnaire and answer sheet are available on microfiche from the ERIC Document Reproduction Service, P. O. Box 190, Arlington, Virgnia 22210. The instrument is copyrighted. The author would like copies of studies using the instrument.

REFERENCES

Sheridan, E. M. Children's perceptions of sex stereotyping in elementary school. Paper presented at the 22nd annual convention of the International Reading Association, Miami, May 1977, and the First Annual Conference of the Eastern Educational Research Association, Williamsburg, Virginia, March 1978. (ERIC Document No. to be assigned, 1979.)

EVALUATION GUIDELINES FOR MULTICULTURAL/ MULTIRACIAL EDUCATION

AUTHOR

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National Study of School Evaluation
2201 Wilson Boulevard
Arlington, Virginia 22201

Awareness of Sexism and Racism

DATE DEVELOPED

1973

INSTRUMENT TYPE

Evaluation guidelines and opinion surveys

MEASUREMENT VARIABLES

Awareness of racism, institutional racism.

TARGET POPULATION

These guidelines are intended for use by school staff, especially in secondary schools. The opinion surveys are designed for secondary school students and for professional school staff.

INSTRUMENT FORMAT

The 56-page Evaluation Guidelines booklet is divided into nine sections titled: (1) Fundamental Commitments, (2) The School and Community Setting, (3) Central Office Context (including the Board of Education and the Superintendent's Office), (4) School Structure Relating to Multicultural/Multiracial Education, (5) The Education Program, (6) Student Personnel Services, (7) Process of Involvement and Decision Making, (8) Change and Improvement, (9) Evaluation of the School's Efforts toward Multicultural/Multiracial Education. The nine sections are comprised of open-ended questions about the characteristics of the school and community, the school's general philosophy and objectives, and the specific commitments the school has made to multicultural/multiracial education. In addition, most sections contain checklists requiring ratings on a 4-point scale. The nine sections are followed by a 13-item Student Opinionnaire and a 16-item Teacher Opinionnaire, both in multiple choice format.

ADMINISTRATION

General instructions accompany the Guidelines which may be used in conjunction with a full-scale evaluation or a separate partial evaluation, and as a self-evaluation or an external evaluation.

SCORING

The results are to be interpreted within the context of the school's own philosophy. The Guidelines are not intended as prescriptions, but are meant to help a school direct its efforts toward a successful multicultural/multiracial program. The results of the two Opinionnaires should be compiled in terms of significant subgroups. Individual scores are not computed.

Awareness of Sexism and Racism

DESCRIPTION

Development. The Evaluation Guidelines for Multicultural/ Multiracial Evaluation were developed under the auspices of the National Study of School Evaluation, in response to requests for assistance in evaluating a critical area of American education not covered by existing evaluative materials. Dr. John Stanavage served as project director and collaborated with five specialists in writing, reviewing, and editing the materials. The Evaluation Guidelines were field tested in six high schools across the United States and in one high school in England. After revision, the materials received the approval of the General Committee of the National Study of School Evaluation.

SAMPLE ITEMS

III. Central Office Context

A. The Board of Education

6b) Does the board have a written policy concerning the racial composition of the professional staff? (If so, please attach a copy.)

8. Describe the efforts the board makes to encourage minority group parents to meet with it.

IV. School Structure Relating to Multicultural/Multiracial Education

B. The Teaching Staff

Checklist

1. The staff is receptive to minority colleagues. na 1 2 3 4

8. Teachers respect the cultural, racial, and ethnic differences of their students na 1 2 3 4

D. School Organization and Grouping

Evaluations

a) To what degree does the organization of the school provide a total experience promotive of multicultural/multiracial education? na 1 2 3 4

Student Opinionnaire

1. Racial differences are not important to the students in this school.

_____(a) agree _____(b) disagree _____(c) uncertain

Awareness of Sexism and Racism

5. This school seems to favor students who are:

_____(a) non-white   _____(b) white   _____(c) no favoritism is shown

Teacher Opinionnaire

	Yes	No	Uncertain	No Preference
1. I find (would find) professional fulfillment in teaching in a racially integrated school.				

2. I think that students in this school generally receive:

(a) equal treatment, regardless of race
(b) unequal treatment, because of race
(c) I can make no judgment on this
(d) most students here are of one race

15. In matters relating to racial and cultural minority groups, I feel this school is doing a job best characterized as:

___(a) excellent   ___(b) good   ___(c) fair   ___(d) poor

AVAILABILITY

The Evaluation Guidelines booklet may be purchased from the National Study of School Evaluation. The Student Opinionnaire and the Teacher Opinionnaire are included in the booklet but are also packaged separately and may be purchased in quantity from the same source. The Guidelines are copyrighted and may not be reproduced.

GUIDELINES FOR SELF-OBSERVATION OF TEACHER BEHAVIOR

AUTHORS

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Iris Sue Feldman
Public Schools of Brookline
Brookline, Massachusetts 02146

DATE DEVELOPED

1975

Awareness of Sexism and Racism

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Sex role stereotyping

TARGET POPULATION

The guidelines are designed to be used by elementary and secondary teachers.

INSTRUMENT FORMAT

The guidelines consist of 12 groups of questions. The questions pertain to distinctions between the treatment of boys and that of girls in the classroom, in the following areas: sex-delineated areas in the classroom (e.g., boy books and girl books); sex delineated activities or roles; dominance of males or females in examples used in class discussions or bulletin board displays; types of chores in the classroom and who performs them; behavioral expectations for each sex; differential display of affection and displeasure; differential administration of censure, punishment, and reward; and verbal cues for sex-role behavior. Questions are open-ended and unstructured.

ADMINISTRATION

The guidelines are designed for self-administration in their current format. By modifying the format to provide response categories, an outside observer could evaluate the behaviors of teachers. Directions for using the guidelines are provided.

SCORING

Scoring directions are not provided. If adapted for objective-referenced evaluation, an evaluator could tally and hand-score responses by assigning numerical values to responses.

DESCRIPTION

Development. The Directors of Instruction in the Brookline Public Schools requested development of the guidelines. In 1972, the Brookline Public Schools formed a committee to deal with the issue of sex-role stereotyping in the schools. This committee had worked to identify issues of sex-role stereotyping in curriculum learning materials, physical education, and athletics. As an outgrowth of committee work, two staff volunteers prepared a handbook including suggestions for activities and materials to enable the schools to minimize sexist behaviors and attitudes. The guidelines, a major component of the handbook, were sent to directors of instruction in Brookline, so that issues related to sex-roles would be included in their evaluation of teacher performance.

The Guidelines for Self-Observation of Teacher Behavior were designed to help elementary and secondary school teachers analyze their own behaviors, attitudes, and use of classroom materials in terms of sex-role stereotyping. They are an intrinsic part of a program in the Brookline Public Schools designed to reduce sexist attitudes and behaviors in the schools.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

Additional Information. The handbook cited in the reference section also includes laws pertaining to sex discrimination in education, regulations pertaining to access to equal educational opportunity, examples of curriculum materials in Brookline, studies bearing evidence of sex-role stereotyping, other steps to be taken to minimize such stereotyping, and resources available in Brookline to help meet the program goals.

SAMPLE ITEMS

2. Do you plan different activities, or different roles within an activity, for boys and girls? How are they different?

5. Whom do you ask to do secretarial chores and special tasks? Is this group predominantly male or female? Do you ask for a "strong boy" or a "good girl?"

8. Do you censure boys and girls for different behaviors? What behaviors?

12. Notice what verbal cues for sex-role behavior you mention during the day: For instance, "Boys should _______," "Big boys don't ______," "Nice girls won't ______." Count the number of times you refer to the sex of a student or of the students as a group--"boys and girls," or "now girls..."

AVAILABILITY

The Guidelines may be reproduced from the handbook cited in the references. The guidelines were included in the handbook with copyright permission obtained from The Feminist Press (see references). The handbook may be purchased from:

Dr. Jacqueline Clement
Assistant Superintendent of Schools
Brookline Public Schools
Town Hall, Washington, Street
Brookline, Massachusetts 02146

REFERENCE

Johnson, L. O. Nonsexist curriculum materials for elementary schools. Old Westbury, New York: The Feminist Press.

Strom, M. S., & Feldman, I. S. Sex-role stereotyping in the school: A handbook for teachers in the public schools of Brookline, Massachusetts. Brookline, Massachusetts: Brookline Public Schools, 1975.

INFORMAL TEACHER SEXIST ATTITUDE SURVEY (ITSAS)

AUTHOR

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Houston, Texas 77006

DATE DEVELOPED

1977

INSTRUMENT TYPE

Projective test

MEASUREMENT VARIABLE

Sexist attitudes in education setting

TARGET POPULATION

The instrument is designed for use with elementary school teachers.

INSTRUMENT FORMAT

Forms I and II of the Informal Teacher Sexist Attitude Survey (ITSAS) each consist of six vignettes. A vignette presents a hypothetical classroom problem situation. The respondent provides an open-ended response describing a specific solution to the problem situation.

ADMINISTRATION

Both forms are intended for group administration. Directions are provided with the instrument. Time required for each form is approximately 40 minutes.

SCORING

The instrument is hand scored. Complete scoring and interpretation instructions are provided with the survey.

DESCRIPTION

Development. The ITSAS was developed as a means of assessing the effects of short-term consciousness raising instructional approaches on the sexist attitudes of preservice teachers. The vignette form of question was chosen since it was similar to other work in the courses in which students were enrolled. This made it possible to camouflage the test items in the routine of class work, freeing the ITSAS from the influence of teacher expectations. After a pilot study determined that the vignette procedure could be used effectively to measure sexist attitudes, a pool of 18 vignettes was analyzed by a panel of nine experts and the 12 items considered most appropriate were selected for inclusion in the final version of the instrument. Forms I and II each contain six items and are interchangeable as pre- and posttests. The final form of the instrument consists of vignettes reflecting sexism in three areas: educational management, content, and language. Each Form includes two items from each category. The author notes that the instrument is especially appropriate in situations which concern classroom management techniques or affective factors which contribute to student achievement. Revision of the instrument was in progress at the time of this writing.

Reliability. Forms I and II correlated .21 in a subject sample consisting of 70 preservice teachers enrolled in education courses, indicating positive but low alternate-form reliability. Test-retest reliability, based on administration of one of the forms as both pretest and posttest with a four week interval, is reported at .37.

Validity. Content validity of the ITSAS may be inferred from the consensus of the panel of nine experts whose judgments also served as the basis for the selection of the test items. Evidence of concurrent validation is provided by the positive correlation (.27) of the ITSAS with the Werner Sexist Attitude Scale (WSAS), a Likert type scale measuring societal sexism. The ITSAS has been used successfully in a study of attitude change in 70 preservice teachers instructed with different approaches.

SAMPLE ITEMS

1. How would you handle this situation? Write your solution; be specific; use exact wording and include any appropriate follow-up activities.

   After reading the story of "Little Red Riding Hood" to your first-grade class you tell them they are going to act it out and can volunteer for parts. With this, a commotion breaks out in the back of the room. The whole class is watching as Betty and Robbie "discuss" who is to play the part of the wolf. Robbie says, "Everyone knows the wolf was a guy cause he had big teeth and was strong." "Well," Betty retorts, "maybe the wolf was a girl, some girls have big teeth, and besides I like to walk in the woods."

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage.

KATZ-ZALK PROJECTIVE PREJUDICE TEST (K-Z TEST)

AUTHORS

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Sue Rosenberg Zalk
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New York, New York 10021

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes toward race and gender

TARGET POPULATION

The instrument is designed for use with elementary school children of both sexes. The instrument is designed specifically to assess racial attitudes of black and white children.

INSTRUMENT FORMAT

The test consists of 55 slides depicting children interacting in a school setting. Each slide is presented, and the child taking the test must note which child in the slide is accountable for a particular act. Thirty-eight of the items measure racial attitudes, with the slide presenting a choice between black and white children. The remaining questions are intended to disguise the purpose of the test and depict children of the same race. Thirteen of these items show children of the same race but opposite sex and may be considered a measure of gender attitude. The child makes responses in an answer booklet which has a sketch of each slide with the question printed next to it. The format of the booklet is designed so that younger children can easily indicate their responses without being dependent on reading skills, and so that the test can be administered to a large group of children.

ADMINISTRATION

The instrument is designed for group administration, and directions for administration are provided. The examiner projects the slides and reads each question aloud, while the subjects mark an "X" under the sketch of the child they think is accountable for the behavior. Approximate administration time is 45 minutes.

SCORING

The instrument is hand scored. Total scores and subscores can be calculated. Of the 38 racial attitude questions, 21 contain negative items (e.g., Who failed the test?) and 17 contain positive items (e.g., Who won the game?). Scores on the negative items can be summed to yield a Prejudice Subscore, and scores on the positive items can be summed to yield a Pride Subscore. The 13 gender attitude questions also include both positive and negative items and can be scored to yield Prejudice and Pride Subscores as well as a total score. Instructions for scoring are provided. The total range possible is 0-38 for the racial attitudes scale and 0-13 for the gender attitude scale.

DESCRIPTION

Development. The Katz-Zalk Projective Prejudice Test (K-Z Test) was originally designed to measure racial attitudes in children. The rationale behind all of the items used in the test is the concept of prejudice defined as prejudgment, that is, making a decision about individuals before adequate information is known. Each slide presents children with a deliberately ambiguous situation where little else is known beyond the race and gender of the children depicted on the slides and requires them to make a decision based on inadequate information. The instrument was designed as a group-administered test in order to circumvent the problem of other individually administered racial attitude tests designed for children, which were sensitive to the race and sex of the examiner. As a measure of racial attitudes, the K-Z Test has been standardized on 547 children in grades 1, 2, 4, and 5 from a lower middle class urban community in The Bronx, New York City. An additional 1,800 children from a suburban community in New Jersey have been tested as a comparison sample to see if a contrasting location would yield a different distribution of scores. In addition, the instrument has been used in a study of children's gender biases, which involved administration to 1,169 children in grades 2 and 5 in two geographical locations.

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Reliability. Split-half reliability, using Pearson product moment correlation, for the racial attitude scale is reported as .81 for the total scale and as .73 and .61 for the Racial Prejudice and Racial Pride scales respectively, based on administration to 547 urban children. For the black and white samples, split-half reliabilities for the total scale are reported as .76 and .83. Inter-item correlations range from .10 to .47.

Validity. Face validity is claimed for the K-Z Test on the basis of the design of the test, in which children are given ambiguous situations where little else is known other than gender and race of children depicted on the slides and must make judgments based on inadequate information.

Predictive validity of the racial attitudes scale was measured by the results of a study in which children in the standardization sample were assessed along multiple dimensions individually with black and white examiners. The indices included the distance the child chose to sit from the examiners, choice of examiner with whom to play a game, and game-playing behavior when playing with the cross-race examiner. Multiple correlation between these indices and total score on the racial attitudes measure was .33 for black subjects and .25 for white subjects, indicating that the test exhibits differential predictive validity for the two groups. A study is also reported in which the K-Z Test was used as a measure of the effects of several short term intervention techniques for modifying negative racial attitudes in white grade-school children, in which it detected significant differences between experimental and control groups.

As evidence of construct validity of the racial attitudes scale, it was found that highly prejudiced children of both races (as measured by scores on the instrument) perceived black and white faces as more distinctive than did their low prejudice counterparts.

Some evidence of predictive validity of the K-Z Test as a measure of gender attitudes is provided by the results of one study involving administration to 1,169 children in grades 2 and 5 in two geographical locations. Results of an analysis of variance based on student sex, age, race, location, and pride or prejudice scores revealed a number of main effects and interactions. Examples of these include the findings that girls are more gender biased in attitudes than boys, that younger children are more gender biased than older children, and that gender bias takes the form of attributing positive attributes to one's own sex more than negative attributes to the opposite sex. These findings may be considered to be evidence of predictive validity, since they illustrate the capacity of the test to detect significant differences in gender attitudes between groups.

Norms. Tables of mean scores by sex of subject and by race of examiner are available for the eight racial pride and racial prejudice subscales of the instrument.

SAMPLE ITEMS

(Examiner shows a slide of two or more children, and asks:)

4. One of these boys is always invited to all the parties because everyone likes him. Which boy does everyone like?

12. Sharon and Jill both have six pieces left. Which child will win the checkers game?

27. These two girls are both fast runners. They are going to race one another. Who will win?

30. The teacher is asking both children what happened in the cafeteria. They are both telling different stories. She knows who to believe because one of the children always tells lies. Which one always lies?

40. This class just won an award. One of these children was elected to get the award for them. Which child did the class choose?

AVAILABILITY

Information about the availability of this instrument may be obtained by contacting the authors.

REFERENCES

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QUESTIONNAIRE ON PARENT AND EDUCATOR KNOWLEDGE OF AND ATTITUDES TOWARD SEXISM AND THE LAW

AUTHORS

Barbara Mullally
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DATE DEVELOPED

1977

INSTRUMENT TYPE

Knowledge test and attitude scale

MEASUREMENT VARIABLES

Awareness of sexism, institutional sexism, materials evaluation

TARGET POPULATION

The instrument is designed for use with parents and educators.

INSTRUMENT FORMAT

The questionnaire contains 61 items in six categories. Items 1-32 pertain to knowledge, items 33-61 pertain to attitude. The following list shows the number and type of items in each category.

Category	Number of Items	Response Type
Factual questions on sexism	14	yes/no/not sure
Women who have contributed to women's equity	6	multiple choice
Title IX	8	yes/no/not sure
Content analysis of sex bias in materials	4	yes/no
Adjectives characterizing males, females, or either	6	multiple choice male/female/either
Attitudes toward sex roles	23	5-point scale (strongly agree to strongly disagree)

Awareness of Sexism and Racism

ADMINISTRATION

The instrument is designed for group administration. Suggestions for administration are included with the instrument. Approximate administration time is 50 minutes to one hour.

SCORING

Respondents mark their answers on a separate answer sheet which can be read by an optical scanning computer. A scoring key and attitude item weighting code are provided.

DESCRIPTION

Development. Project ASPIRE, a WEEA project, developed this instrument to investigate parent and educator knowledge of and attitudes toward sexism and the law as it now stands. It may be used as a pre- and post-test of a training program to increase teacher, counselor, administrator, and parent awareness of sexism. Project ASPIRE produced four modules, of which the first three have corresponding parts in the questionnaire: self awareness of sexism; sexism in schools; evaluating counseling and curriculum material; and developing process of change for a local school system.

The authors wrote 130 items based on the objectives of Project ASPIRE. After a field test of all items, the authors identified for the final instrument those items with the best discrimination capabilities. The field testing occurred in December 1976 and January 1977. Representative samples of about 50 administrators, parents, teachers and counselors (who were not the target group taking the modules) served as the population for the field test. The authors selected items that measure achievement of the objectives for all four modules.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

Additional Information. Because this questionnaire was developed to test particular modules, some of the items require knowing specific content. Questionnaire administrators may want to obtain copies of the modules in addition to the questionnaire.

SAMPLE ITEMS

4. "Women are better able to endure shock and exposure" is a sex role stereotype.	Yes	No	Not sure

Awareness of Sexism and Racism

16. (Match the following women with her contribution towards women's equity)

Mary McLeod Bethune
A. Nineteenth century painter
B. Congresswoman
C. Founded schools for blacks

24. There are some occupations which are legally limited to one sex. Yes No Not sure

A = Strongly agree
B = Agree
C = Neutral
D = Disagree
E = Strongly disagree

40. Men work harder on their jobs than women do. A B C D E

44. Sexism and racism present equally serious problems to society. A B C D E

57. Nurturance and concern for others are equally important for men and women. A B C D E

AVAILABILITY

This instrument and other materials from Project ASPIRE may be purchased from:

Education Development Center
WEEAP Dissemination
39 Chapel Street
Newton, Massachusetts 02160

For additional information on the availability, call toll free (800) 225-3088 or within Massachusetts call (617) 969-7100.

SRA OPINION SURVEY FOR WOMEN

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Graduate School of Business Administration
Carroll Hall
Chapel Hill, North Carolina 27514

Awareness of Sexism and Racism

DATE DEVELOPED

1976

INSTRUMENT TYPE

Opinion survey

MEASUREMENT VARIABLES

Awareness of sexism; opinions about the employment characteristics of women.

TARGET POPULATION

The instrument was designed for use with adult women, particularly those employed in any work setting. Results of the survey were intended for use by managers or employers.

INSTRUMENT FORMAT

The survey is an anonymous 72-item instrument covering six areas: the organization's general treatment of women (12 items); the organization's attitudes toward women (16 items); development opportunities available for women (10 items); staffing policies affecting women (16 items); recognition, compensation and time off for women (13 items); and compliance of the organization with equal employment opportunity laws (5 items). Individuals respond to items on a 5-point scale ranging from 'strongly disagree to 'strongly agree'.

ADMINISTRATION

The survey can be used as part of the SRA Sex Discrimination Awareness Program or as an independent tool to examine the attitudes and feelings of women employees at all organizational levels. The survey takes about 20 minutes and is intended primarily for group administration. The Administrator's Guide presents detailed instructions for administration, statistical descriptions of norm groups, as well as the means, standard deviations, and mean difference between the national sample and the various subgroups analyzed.

SCORING

Hand-scoring directions are included inside the perforated test booklet which has a self-contained scoring sheet (a carbon paper transfers responses as the subjects mark their answers).

DESCRIPTION

Development. An experimental form of the survey was constructed and reviewed by SRA staff for relevance, ambiguity and duplication of content. The resulting 82-item form was administered to 862 female managers and employees in a variety of organizational settings throughout the country in 1975. A point biserial item analysis was performed, and individual items were intercorrelated to eliminate overlapping items. The final survey emerged as a result of these analyses.

This survey is part of the SRA Sex Discrimination Awareness Program, which was designed primarily to heighten managerial awareness of sex discrimination and to help managers deal with the problem. This survey is intended to determine the extent of sex discrimination as perceived by female employees by assessing female employee attitudes toward organizational policies affecting women. The survey can be used with participants involved in the entire Awareness Program and with women at all organizational levels. The data are useful to organizations that want to assess and improve their equal employment opportunity (EEO) policies. The survey can be used as a pre- and post-measure to show attitude change. Organizations can also see where they stand in comparison with other organizations in the U.S., and group profiles can be compared with national norms.

Reliability. The authors have reliability data that have not been analyzed. (See reference cited: Rosen & Jerdee, 1978.)

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

Data were analyzed in terms of several variables including type of organization, geographical region, and level of responsibility. Although many analyses yielded no significant results, several relationships emerged in an expected direction, giving some evidence for construct validity. Specifically, it was found that women with higher levels of responsibility scored better, as did employees with female supervisors.

Additional Information. The Administrator's Guide presents statistical descriptions of norm groups as well as the means, standard deviations, and mean difference between the national sample and the various subgroups analyzed.

SAMPLE ITEMS

SD = Strongly disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly agree

General Treatment

5. Single young women are not thought of as career employees, while single young men are.

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Awareness of Sexism and Racism

Attitudes Toward Women

10. Most male supervisors here would not work for a woman.

Development

1. This company is just as willing to give special training opportunities to women as to men.

Staffing

3. The standards of selection and promotion tend to be male-oriented.

Recognition, Pay, and Time Off

6. Men often take credit for work that is really done by the women.

Legal Compliance

3. This organization tries to make all of its managers aware of its commitment to affirmative action for women.

AVAILABILITY

The instrument may be ordered from:

Science Research Associates, Inc.
155 Wacker Drive
Chicago, Illinois 60606

REFERENCES

Rosen, B. & Jerdee, T. H. Perceived sex differences in managerially relevant characteristics. Sex Roles, 1978, 4, 837-843.

Science Research Associates, Inc. SRA Sex Discrimination Awareness Program, Administrator's Guide. Chicago: SRA, Inc., 1976.

SITUATIONAL ATTITUDE SCALE (SAS)

AUTHORS

William E. Sedlacek
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College Park, Maryland 20742

Awareness of Sexism and Racism

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitude toward race, attitude toward Blacks

TARGET POPULATION

The instrument is designed for use with college students and adults of both sexes. It is specificially intended to measure the attitudes of whites toward Blacks, but may be used with Blacks for purposes of discussion and comparison.

INSTRUMENT FORMAT

The instrument appears in two forms, A and B. Each presents 10 personal and social situations followed by 10 bipolar semantic differential scales. The same situation and scales appear on both forms, but on Form B the word 'Black' is inserted in each situation.

ADMINISTRATION

The instrument is designed for group administration. Directions are printed on the form. Answers are marked on separate answer sheets. Administration suggestions are given in the accompanying manual. Approximate administration time is 15 minutes.

SCORING

The instrument may be scored by hand with the use of tables provided in the manual. However, since hand scoring is time-consuming, machine scoring is recommended.

DESCRIPTION

Development. The Situational Attitude Scale, SAS, was developed to measure the attitudes of whites toward Blacks. To provide a racial context and to make psychological withdrawal difficult, 10 personal and social situations, with some relevance to a racial response, were created. The situations represent instances where race might be a variable in reactions to the situation. For each situation, 10 bipolar semantic differential scales were written, making a total of 100 items in the SAS. Two forms of the SAS were developed. Each contains the same situations, bipolar scales, and instructions, except that the word 'Black' is inserted in each situation in Form B. It is suggested that the SAS be used in a variety of ways for such purposes as human relations training, program evaluation, research, and individual use. In individual use, the SAS can be of assistance in counseling or diagnostic work with individual clients or cases, or as a self-evaluation technique. In circumstances where racial attitudes are important, the SAS is particularly useful. It is also appropriate in any situation requiring general personality or attitude information.

Reliability. Median communality for the combined forms, based on principal components factor analysis, is reported at .75. Further evidence of reliability is the stability of the factor structures across several separate studies.

Validity. The primary method of estimating SAS validity is internal. That is, it is based on the mean difference in subject responses to Forms A and B. If subjects have been randomly assigned to complete Form A or B and all other experimental conditions are constant, any difference found must be attributed to the insertion of the word 'Black' in Form B. Every study conducted with the SAS to date has found significant differences between the two forms. The number of items (out of 100) significantly different between Forms A and B has varied between 22 and 59. Only 9 tests out of 100 would be expected to be significant at the .05 level by chance, hence the results are not due to chance. In addition to estimates of validity provided by this method, work is currently going on relating the SAS to actual and intended behaviors.

Norms. Normative data, including means, standard deviations, and t tests on item differences, are reported for Forms A and B. Separate tables are presented for 365 white University of Maryland students and 274 white university students in Denmark. In addition, means, standard deviations, and results of analyses of variance for 1,114 white University of Maryland students by sex are presented. Since systematic differences in male and female responses to the SAS have been obtained, with women reacting more positively than men to social situations and more negatively than men to situations involving potential physical harm or sexual contact, it is suggested that users refer to the norms reported by sex or develop their own norms.

SAMPLE ITEMS

Form B

I. A black family moves in next door to you.

1.	good	A B C D E	bad
6.	nervous	A B C D E	calm
10.	suspicious	A B C D E	trusting

VI. You are stopped for speeding by a black policeman.

53.	afraid	A B C D E	safe
56.	bitter	A B C D E	pleasant
59.	inferior	A B C D E	superior

AVAILABILITY

The instrument, which is copyrighted, is available from the author at duplicating cost plus postage. The author would like to receive copies of studies using the instrument.

REFERENCES

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Note: The author has additional references for the SAS contained in reports.

CROSS REFERENCES

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Hopple, G. W. Protest attitudes and social class: Working class authoritarianism revisited. Sociology and Social Research, 1976, 60, 229-246.

Shueman, S. A. Reliability, validity and factor structure of a measure of attitudes toward sex roles. Unpublished doctoral dissertation, University of Maryland, College Park, 1977.

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Whaples, G. C. *Racial attitudes of one group of adult educators*. Paper presented at the Adult Education Research Conference, St. Louis, April 1975.

STUDENT CHECKLIST

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Opinion questionnaire

MEASUREMENT VARIABLE

Student perceptions of sex stereotyped and sex affirmative behaviors of vocational teachers

TARGET POPULATION

The instrument is designed for high school vocational education students of both sexes.

INSTRUMENT FORMAT

The instrument consists of 25 items in yes/no format, printed on a machine-scorable answer sheet.

ADMINISTRATION

The instrument is designed for group administration. Directions are printed on the form. Administration time is approximately 15 minutes.

SCORING

The instrument is designed for machine scoring. Individual items are scored '0' if sex biased teaching behaviors are reported and '1' if not reported. The total score is multiplied by four, making the maximum possible score 100. A score of 100 would indicate that students reported no sex stereotyped or biased teaching behaviors. A computer program is available to provide summary data to teachers by class, by item, and by sex.

DESCRIPTION

Development. This questionnaire was developed to obtain students' perceptions of sex stereotyped or sex affirmative behaviors of their vocational teachers. It was developed as part of a Project MOVE education course at Cornell University. The checklist was also one of two instruments designed for a New York state-wide study of sex equity in vocational education. The other related instrument was designed to measure teachers' attitudes regarding the expanding roles of men and women. (This instrument, Checklist for Sex Fair Teaching Behaviors, is also described in this section.) The original Student Checklist was made up of 32 items. In its current form, the Checklist contains 25 items. Additional data have been collected and are available from the authors.

Reliability. Reliability was determined, in part, by having the students of 25 vocational student teachers complete the Checklist and then having their cooperating teachers rate the student teachers on the same instrument. The correlation coefficient obtained when comparing the ratings from the students and the cooperating teachers was .84.

Validity. The authors consider the positive correlation between student teachers' and cooperating teachers' responses as providing some evidence of instrument validity. Content validity was confirmed by 30 occupational teachers reviewing the list. The first major study using the Checklist, based on approximately 200 student ratings, resulted in a rank order of occupation program areas as follows:

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(Occupation Program Area)	(Average Rating)
Distributive Education	72.4
Health Occupations	68.4
Business	67.5
Home Economics	67.3
Agriculture	61.2
Trade and Industry	60.6
Technical	57.1

SAMPLE ITEMS

DOES YOUR TEACHER EVER???

3. talk about how both men and women work in the jobs you are learning about? For example: women who repair cars; men who work in a nursery school.

16. put boys and girls into separate groups for activities or projects?

25. set the same rules for behavior for boys and girls?

AVAILABILITY

A copy of the instrument is available from C. J. Farris for duplicating and postage costs. The computer program and machine-scorable answer sheets are available at cost.

WERNER SEXIST ATTITUDE SCALE (WSAS)

AUTHOR

Marie Einhorn Werner
148 Heatherdell Road
Ardsley, New York 10502

DATE DEVELOPED

1973

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Sexist attitudes, awareness of sexism

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Awareness of Sexism and Racism

TARGET POPULATIONS

The Werner Sexist Attitude Scale (WSAS) is designed for use with adults of both sexes.

INSTRUMENT FORMAT

This is a Likert scale containing 16 items evenly divided between positively and negatively phrased statements.

ADMINISTRATION

The scale is intended for group administration. Directions are printed on the instrument. Approximate administration time is 20 minutes.

SCORING

Scoring procedures are described by Werner, 1973 (see references). An individual score is computed by summing points across items, with scoring for negatively phrased items being reversed. A low score indicates a low amount of 'sexism.'

DESCRIPTION

Development. The development of the WSAS began with the construction of 165 positively and negatively phrased items addressing feminist issues. After revisions and deletions based on a review by experts in the social sciences and by authors of feminist literature, a preliminary scale was administered to criterion groups expected to endorse extreme positions at both ends of the continuum. Items were selected for further development that discriminated between these groups in the expected direction. The resulting 46-item scale was administered to 321 college home economics students and factor analyzed, yielding three factors subsequently confirmed in a second factor analysis based on data contributed by another group of 104 students. Items were selected for inclusion in the final scale that met the criterion of a factor loading of .35 or better on one of the three factors identified in the original factor analysis and that, in addition, discriminated by t test between high and low scorers on the instrument as a whole. The final 16-item scale includes five or six items representing each of the three factors, described as the social psychological factor (attitudes toward women's social interaction patterns in society as well as their presumed psychological and emotional functioning), the economic-occupational factor (employment behavior and patterns of domestic responsibility), the familial factor (family topics and moral issues).

Reliability. Test-retest reliability is estimated at .96 (n=321) after a four-week interval. Split-half reliability, using the Spearman-Brown formula, is estimated at .91 for the total scale and at .87, .79, and .63 for Factors I, II and III, respectively.

Validity. Evidence for the validity of the WSAS is provided by its capacity to discriminate between criterion groups in the predicted direction, as well as by the factor analyses involved in its construction.

In addition to the validation of the scale inherent in its development, the discriminant validity of the instrument was tested by correlating factor scores and total scores with selected items from other scales representing constructs other than sexism. Correlations between items selected from the Open Subordination of Women Scale, the Chivalry Scale (both by Nadler and Morrow, 1959), the Political-Economic-Conservatism Scale, the Ethnocentrism Scale, the Fascism Scale (all by Adams, Frenhel-Brunswik, Levinson-Sanford, 1950) and the WSAS factors and total score are positive but low in the subject sample consisting of 321 students, ranging from .14 to .57 for the factors and from .27 to .58 for the total score.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Disagree
4 = Strongly disagree

Women should be able to find satisfaction in traditional female roles.	1	2	3	4
The distinction between MISS and MRS. discriminates against women and should be replaced by MS.	1	2	3	4
Housework should be a paid profession for either men or women.	1	2	3	4

AVAILABILITY

The instrument is copyrighted and may be reproduced from the author's dissertation (cited below) which is available from:

University Microfilm International
P.O. Box 1764
Ann Arbor, Michigan 48106

The author may be contacted for additional information not available from the original material. The author would like copies of studies using the instrument.

REFERENCES

Werner, M. E. A scale for the measurement of "sexist" attitudes. (Doctoral dissertation, Teachers College, Columbia University, 1973). (University Microfilms No. 73-15,030)

ACHIEVEMENT ORIENTATION ATTITUDE SCALE II (AOAS)

AUTHOR

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University of Wisconsin
564 Teacher Education Building
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Madison, Wisconsin 53706

DATE

1978

INSTRUMENT TYPE

Attitude measure

MEASUREMENT VARIABLE

Attitudes toward achievement in career-related situations

TARGET POPULATION

The instrument was designed for use with high school students.

INSTRUMENT FORMAT

The Achievement Orientation Attitude Scale II (AOAS) is a Likert-type scale containing 25 items. Students mark their answers on a separate answer sheet with responses ranging from 'strongly agree' to 'strongly disagree'.

ADMININSTRATION

The AOAS is designed for group administration, and directions accompany the instrument. Administration time is approximately 10 to 15 minutes.

SCORING

The instrument is designed for hand scoring. A total score is computed by summing the points across items. A high score indicates a positive attitude toward direct achievement in career-related areas, and a low score indicates interest in vicarious achievement through a spouse or a significant other. Scoring directions and a key accompany the instrument.

DESCRIPTION

Development. The instrument is designed to measure the present and projected future attitudes of high school students toward vicarious and direct achievement orientations as expressed through career-related statements. A group of 50 statements was generated, based on the Lipman-Blumen vicarious-direct achievement theory (1977). Half of the statements were phrased in the present tense and half in the future or conditional tense. A panel of six persons experienced in counseling girls and women reviewed the 50 statements. Their comments were used as the basis for a revision of the statements. A pretest of the 50-item scale was conducted with 10 male and female high school students who first completed the questionnaire and then discussed it on an individual basis with the test developer. The scale was again revised and pretested a second time with 129 high school females and 83 high school males. The scale was subsequently reduced to 25 items, using the following criteria for item retention: (1) the item elicits a spread across the five response categories ('agree strongly' to 'disagree strongly'); (2) the item elicits a weighting similar to that assigned by the test developer (using a version of the FORTAP Program developed by Baker, 1969); (3) the item indicates mean differences for males and females in the hypothesized direction; (4) the item which meets the above three criteria also maintains the balance of present vs. future content.

A principal components factor analysis was conducted by which seven factors were identified. The first factor, related to achievement, accounted for about 19% of item variance. Means, standard deviations, ranges, and item statistics are available, based on an administration of the instrument to 115 11th grade females from rural and suburban schools.

Reliability. The Hoyt internal consistency reliability coefficient was computed at .79, using the females (n=129) from the pretest sample. With an additional experimental sample of 115 junior-year high school females, reliability was computed at .82.

Validity. Content validity may be inferred through the systematic procedures used in item development as described above. Additional evidence of validity related to internal structure may be assumed on the basis of the factor analysis data as reported above.

SAMPLE ITEMS

A - Strongly Agree
B - Agree
C - Undecided or Uncertain
D - Disagree
E - Strongly Disagree

6. I would rather help responsible people do their jobs than take on serious responsibility myself.

10. I think about both having to support a family and being head of a household.

13. Speaking in a group makes me nervous -- in such situations I usually let others do the talking.

18. I intend to have my career well underway before I marry.

AVAILABILITY

The AOAS is copyrighted. The instrument and related background information are available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

ASSESSMENT OF CAREER DEVELOPMENT (ACD)

AUTHOR

Research and Development Division
The American College Testing Program
P.O. Box 168
Iowa City, Iowa 52240

DATE DEVELOPED

1973

INSTRUMENT TYPE

Cognitive test, involvement inventory, survey questionnaire

MEASUREMENT VARIABLE

Career development

TARGET POPULATION

The instrument is designed to be used with students of both sexes in grades 8 through 12.

INSTRUMENT FORMAT

The Assessment of Career Development student test booklet contains 263 items divided into six units or scales. Three units (1, 2, 5) assess occupational knowledge, including Job Knowledge, Preferred Job Characteristics, and Career Planning Knowledge. Three other units (3, 4, 6) assess occupational involvement and experiences. including Career Plans, Career Planning Activities, and Exploratory

Job Experiences. Items are primarily in multiple choice format. Unit 7 is for local items which may be added by instrument administrators to survey specific characteristics of their own students.

ADMINISTRATION

Complete directions for administration are provided in the Test Administrator's Manual of Instructions. The instrument may be administered in either three 45-minute sessions or one 125-minute session.

SCORING

The instrument is designed for machine scoring provided by the Houghton-Mifflin Scoring Service in Iowa City, Iowa. The service will provide ACD Group Summary Reports and Student Lists Reports. An explanation of the scoring procedures and score interpretation are provided in the User's Guide and Report of Research.

DESCRIPTION

Development. The ACD was developed to help counselors and administrators obtain information needed to develop effective guidance programs for students in the eighth through twelfth grades as well as to assess the outcomes of career guidance programs initiated in special projects and studies. In order to achieve these goals, scales in the ACD were structured around the following components of career development: occupational awareness, including occupational knowledge and exploratory occupational experiences; self awareness, including job values and preferences, career plans, self evaluation of career planning and perceived needs for help with career planning; career planning and decision making, including career planning knowledge and involvement in career planning experiences.

In the development of Form A of the ACD, items assessing occupational knowledge were drawn from the Cognitive Vocational Maturity Test (CVMT) and items assessing occupational experience were adapted from an inventory developed by the American College Testing Program. Form B was developed from Form A on the basis of recommendations provided by consultants, which led to acceptance, revision, or rejection of the original set of items. In 1973, Form C replaced Form B. In order to create national norms and to gather data to be used in statistical evaluation of the instrument, Form C was administered to 33,000 8th-, 9th- and 11th-grade students in 200 schools located in 33 states. Intercorrelations of the six scales comprising the ACD, based on data contributed by a 10% norm sample, reported separately for grades 9 and 11, indicate that the three knowledge scales are moderately to highly intercorrelated (rs range from .50 to .74) and that the three involvement and experiences scales are moderately intercorrelated (rs range from .50 to .60) but that occupational knowledge is essentially uncorrelated with occupational involvement and experiences (rs range from -.18 to .20).

Reliability. Two types of internal reliability are reported. Since the ACD is a wideband instrument comprised of four heterogeneous scales

(Units 1, 4, 5) designed to cover a large number of career development components in a limited amount of time, and a scale (Unit 6) divided into 6 homogeneous occupational experience clusters assessing experience with different occupational groups, different statistics were used in estimating the internal reliability of the heterogeneous and homogeneous scales. Reliability estimates for the first four scales (heterogeneous) were computed by splitting the scales into half scales judged to be parallel in terms of content and correlating alternate halves. Reliability estimates for the six subscales (homogeneous) into which Unit 6 is divided were obtained using Cronbach's alpha. Reliability, based on alternate forms (Units 1, 4, 5) and Cronbach's alpha (subscales of Unit 6), is reported as ranging from .71 to .93 for the four longer scales and as somewhat lower for the shorter scales.

Validity. The ACD relies on content validity. Because the content validity of any test varies from one school setting to another, it is recommended that final judgment of the ACD content validity should be made by potential users in the context of their own situation. Potential users are advised to study ACD content outline, the description of ACD construction, and the ACD item allocations--all of which are provided in the ACD Handbook. To the extent that there is overlap between the ACD content and local career guidance objectives, the ACD will be valid for a particular school.

Norms. ACD national norms are provided for males, females and the combined group of males and females in grades 8 through 12.

SAMPLE ITEMS

Unit 1 - Job Knowledge

Choose the one best answer - A, B, C, or D - for each of the items that follow.

1. Who would most likely assist people in making arrangements for an out-of-town trip?

   A. Airline stewardess or steward
   B. Porter
   C. Urban planner
   D. Travel agent

Unit 4 - Career Planning Activities

There is a lot involved in making career plans.... For this reason, we would like you to indicate how often you have done each activity listed below. Use the following responses:

A. No, I haven't done this OR the time I spent on this is not worth noting.

B. Yes, I have done this but only once or twice.

C. Yes, I have done this several times.

1. Listened to a tape recording or saw slides, a movie, or a TV program about a job in which I was interested.

5. Read a job description from the school library or guidance office job files.

11. Wrote for materials describing job or educational programs.

AVAILABILITY

The instrument package may be ordered from one of the following Houghton-Mifflin Regional Sales Offices:

666 Miami Circle, N.E., Atlanta, Georgia 30324
6626 Oakbrook Boulevard, Dallas, Texas 75235
1900 So. Batavia Avenue, Geneva, Illinois 60134
Pennington-Hopewell Road, Hopewell, New Jersey 08525
777 California Avenue, Palo Alto, California 94304

The American College Testing Program would like copies of studies using the instrument.

REFERENCES

Maola, J., & Kane, G. Comparison of computer-based versus counselor-based occupational information systems with disadvantaged vocational students. Journal of Counseling Psychology, 1976, 23(2), 163-165.

Noeth, R. J., & Prediger, D. J. Career development over the high school years. Vocational Guidance Quarterly, 1978, 26, 244-254.

Noeth, R. J., Roth, J. D., & Prediger, D. J. Student career development: Where do we stand? Vocational Guidance Quarterly, 1975, 23(2), 210-219.

Pedro, J. D. The relative efficacy of career maturity and gender specific role variables as predictors of planning involvement in high school females. Unpublished doctoral dissertation, University of Iowa, 1978.

Prediger, D. J., Roth, J. D., & Noeth, R. J. Career development of youth: A nationwide study. Personnel and Guidance Journal, 1974, 53(2), 98-104.

Prediger, D. J., Roth, J. D., & Noeth, R. J. Nationwide study of student career development: Summary of results (ACT Research Report No. 61). Iowa City, Iowa: American College Testing Program, 1973.

Rayman, J. R., Bruson, D. L., & Bowlsbey, J. H. The field trial of DISCOVER: A new computerized interactive guidance system. Vocational Guidance Quarterly, 1978, 26, 349-360.

Westbrook, B. W. Content analysis of six career development tests. Measurement and Evaluation in Guidance, 1974, 7(3), 172-180.

CROSS REFERENCES

Hanna, G. S. The ACT Assessment of Career Development, 1973. Measurement and Evaluation in Guidance, 1974, 7(1), 51-54.

Woodward, B. Of conceptions and misconceptions. Vocational Guidance Quarterly, 1975, 24, 3-4.

AWARENESS OF OCCUPATIONAL EXPERIENCE SCALE II (AOES)

AUTHOR

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DATE

1978

INSTRUMENT TYPE

Cognitive test

MEASURMENT VARIABLE

Awareness of facts about women in the labor force

TARGET POPULATION

The instrument is designed for secondary students of both sexes.

INSTRUMENT FORMAT

The Awareness of Occupational Experience Scale (AOES) consists of 25 items in true/false format.

ADMINISTRATION

The instrument is designed for group administration, and directions are printed on the form. Approximate administration time is 10 to 12 minutes.

SCORING

The AOES is designed for hand scoring. An individual score consists of the number correct. A scoring key is provided.

DESCRIPTION

Development. A pool of 50 preliminary true and false items was constructed, based on a Department of Labor monograph, Women and Work (1977). One-third of the items were concerned with facts about the pattern of female work force involvement; one-third of the items concerned the differences between the occupational experiences of men and women; and the remaining items related to legislative protection available to women workers. A content validation panel of six persons with experience in counseling girls and women reviewed the items. Panel comments were used as a basis for editing the items. A pretest of the 50-item test was conducted with 10 male and female high school students who first completed the test and then discussed it on an individual basis with the test developer. The items were revised and field tested a second time with 202 high school students. The scale was reduced to 25 items based on the results of this pretest.

Descriptive statistics (means, standard deviations, and ranges) are available based on the second pretest sample and also on a sample of 115 high school females who took the final version of the test.

Reliability. The Hoyt internal consistency reliability coefficient was .77 based on the second pretest sample.

Validity. Validation of the instrument is based primarily on the content validation procedures and the pretesting as described previously. The criteria on which items were selected for the final version of the scale included (1) items with the highest discriminatory values were retained; (2) items that had scores permitting a spread across the ability criterion were retained; (3) items which had the highest reliability were retained; and (4) items that ranked highest on the preceding criteria and that also retained the three content domains described above formed the final group selected.

Some evidence of concurrent validity was established by the author in administering both this scale and the Achievement Orientation Attitude Scale (a scale developed by the author to measure attitudes toward direct or vicarious achievement orientations) to the sample of 115 female high school juniors. A correlation coefficient of .83 was obtained between the two scales. The correlation suggests, as might be expected, that students having a direct achievement attitude also had more awareness of the occupational experiences of women.

SAMPLE ITEMS

The following statements are either true or false. Each has a right and a wrong answer. Blacken the circle to the right of each number on your answer sheet that corresponds to the number of the statement; use A for true or B for false to indicate whether you think the statement is true or false.

2. One-third of families headed by females live on poverty-level incomes.

9. The number of working women with preschool-aged children is decreasing.

18. The woman who finds she is not paid as much as a man for doing the same work has a reason to take legal action against her employer.

24. When interviewing applicants the employer should indicate which sex of worker is preferred for the job.

AVAILABILITY

The AOES is copyrighted. The instrument and accompanying descriptive information are available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

CALIFORNIA OCCUPATIONAL PREFERENCE SYSTEM (COPS)

AUTHORS

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Lila Knapp
EdITS
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San Diego, California 92107

DATE DEVELOPED

1974; revised 1976

INSTRUMENT TYPE

Attitude scale and interest inventory

MEASUREMENT VARIABLE

Career interests

TARGET POPULATION

The instrument is designed for elementary, junior high, and high school students.

INSTRUMENT FORMAT

The COPS inventory is designed for self-administration. It contains 168 Likert-type items, which are job activity descriptions reflecting work performed in a wide variety of occupations. Student responses range from 'like very much' to 'dislike very much'.

The COPSystem Intermediate Inventory (COPSystem II) is also designed for self-administration and has two sections, the Inventory section and the Self-Interpretation section. The Inventory section consists of seven categories, covering educational plans, preferred school subjects, selection of leisure time activities, qualities preferred in a job and in the work environment, and items related to the occupational family clusters. The Self-Interpretation section lists the occupation clusters with sample occupations and suggested student activities. Students complete this section by selecting jobs to look up in outside resources, such as the Occupational Outlook Handbook.

The COPS takes about 30 to 40 minutes to complete. Detailed administration directions are given in the technical manual.

SCORING

Two forms of the inventory are available: the self-scoring form (in which responses are marked directly on an expendable test booklet) and the machine scoring form (reusable booklet, responses are marked on a separate answer sheet). A Self-Interpretation Profile and Guide accompanies the self-scoring form. The teacher, counselor, or student uses both documents to produce a profile of occupational interests.

The machine scoring form of the inventory can be used with two types of answer sheets read either by the IBM 1232 or the Digitek optical reader. Machine scoring may be conducted through local computer facilities, or through the publisher's data processing services.

The technical manual recommends using the self-scoring form because of the benefits to students from immediate feedback of results and from the process of taking the test, scoring it, and interpreting the scores. Extensive information on scoring and interpreting the scores appears in both the Examiner's Manual and the Self-Interpretation Profile and guide which accompany the instrument. Each student obtains scores for the 14 cluster scales and plots a profile based on these scores.

DESCRIPTION

Development. The COPS was designed to assist junior and senior high school and college students in career exploration. It provides job activity interest scores based on 14 occupational clusters. The COPSystem II provides a format to measure career interests of elementary grade students or older students with reading or language difficulties.

In the spring of 1975, 7,000 students in public elementary and secondary schools nationwide took the COPS. To ensure that all geographical divisions would be represented in the norms, the states were grouped in five regions for sampling. Students from a community college and a four-year college also took the COPS as part of the norming study.

Reliability. Split-half reliability coefficients for the 14 scales range from .86 to .95. Starting in 1975, Knapp and Knapp conducted a test-retest study using an unselected sample of 7th through 11th graders. Retesting took place one year later. The technical manual reports results for 497 students (241 female and 256 male) who took COPS in the 7th grade and a year later in the 8th grade. Stability estimates of interest scores show median correlations of .63. Also, short-term stability was demonstrated by administering the COPS to 82 students twice with a one-week interval between testings. Reliability coefficients ranged from .77 to .93.

Validity. Item factor analysis demonstrated content validity of the scales. Using data resulting from cluster item factor analysis, the manual presents tables of the three highest loading items on each scale. In each case, loadings are highest on the scale hypothesized for that activity item.

The manual states that correlations have been reported between the COPS and Holland's Vocational Preference Inventory and the Kuder General Interest Inventory. As expected, correlations were highest between the correspondingly named scales of these instruments, ranging generally between .50 and .70.

SAMPLE ITEMS

COPS Inventory

L = Like very much
l = like moderately
d = dislike moderately
D = Dislike very much

4. Determine policies and accounting procedures for a large organization.

15. Conduct research on the effects of vitamins on the growth of laboratory animals.

27. Draw and lay out cartoon illustrations for a manual.

111. Arrange flower displays.

COPS Intermediate Inventory

Circle the letter below for each school subject that best describes how well you do in that subject.

In reading I do well:

A. Usually or often
B. Seldom or rarely

In science I do well:

A. Usually or often
B. Seldom or rarely

Circle one number for each statement:

I spend my free time:

Reading or doing classroom assignments:

A. Usually or often
B. Seldom or rarely

Actively taking part in club or group activities:

A. Usually or often
B. Seldom or rarely

AVAILABILITY

The instrument and accompanying materials are copyrighted and may be purchased from:

EdITS/Educational and Industrial
Testing Service
P.O. Box 7234
San Diego, California 92107

REFERENCES

Knapp, R. R., & Knapp, L. California Occupational Preference System Examiners Manual. San Diego: EdITS, 1976.

Knapp, R. R., & Knapp, L. California Occupational Preference System Technical Manual. San Diego: EdITS, 1976.

CAREER ASPIRATION SCALE (CAS)

AUTHOR

Grace B. Chisolm
College of Education
North Texas State University
Denton, Texas 76203

DATE DEVELOPED

1976

INSTRUMENT TYPE

Survey questionnaire and attitude scale

MEASUREMENT VARIABLES

Career aspirations of educators, relationships between sex, race, professional roles, and promotional aspirations, career choice and motivation

TARGET POPULATION

The instrument is designed for use with school administrators, teachers, counselors of both sexes, and graduate students in educational administration preparation programs.

INSTRUMENT FORMAT

The instrument consists of three parts. Part I contains nine demographic questions. Part II contains eight questions requiring short answers or multiple choice responses and elicits information about career goals. Part III consists of a list of 16 career-related activities to which the subject responds along a 4-point scale indicating the amount of time he or she would be willing to commit to each.

ADMINISTRATION

The instrument is designed for group administration. Directions are printed on the form. Approximate time for completion is 20 minutes.

SCORING

Complete directions for coding responses are provided in an accompanying report on the instrument. Hand scoring is appropriate.

DESCRIPTION

Development. The Career Aspiration Scale (CAS) was designed to assess the relationships between sex, race, professional role, and promotional aspirations as measured by goal orientations and future time perspective. The items in Part II are adapted from Tuckman, Conducting Educational Research (1972). Development of the scoring procedure was based on factor analysis of the responses of 255 subjects. Factor analysis with varimax rotation resulted in the identification of three orthogonal factors. The factors are described as disposition towards future goal attainment (Factor I), willingness to make changes essential to upward mobility (Factor II), and aspirations for career advancement (Factor III). The items loading on each factor are summed to provide three separate scale scores, each of which contributes to the measurement of the constructs inherent in promotional aspiration.

Reliability. Alpha coefficients are reported for the total score and for each of the three scales. Coefficient alpha for the total measure of promotional aspiration is reported at .79, based on the administration to 255 subjects. For Scale I, alpha is .84, for Scale II .81, and for Scale III .74.

Validity. Concurrent construct validity is assessed on the basis of analysis of the factorial composition of the three scales. On the basis of Scale-Total correlations which range from .50 to .85, the instrument is described as having substantial internal structure or construct validity. At the time of this writing, the instrument was undergoing further revision. Additional validation and reliability data will be collected and reported. This revision is designed for the purpose of refining the measure of educator's career aspirations.

SAMPLE ITEMS

Part II

10. Looking at your present professional situation, what do you expect to be doing five years from now?

Part III

Suppose you were offered an opportunity to make a substantial advance in the field of education. Place a check opposite each item in the following list to indicate the amount of time you would be willing to commit toward making this advance.

	Very Little of my time	Limited amounts of my time	Moderate amounts of my time	Most of my time
18. Taking additional courses				
23. Leaving your family				
27. Working extended days				

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Chisolm, G. B. Need achievement and need fulfillment deficiencies as they affect promotional aspirations of educators. Unpublished doctoral dissertation, New York University, 1976.

CAREER COMMITMENT INVENTORY

AUTHOR

Elaine Kotcher
Evaluation and Career Education
Mineola Union Free School District
200 Emory Road
Mineola, New York 11501

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Career commitment

TARGET POPULATION

The instrument is designed to be used with female students in junior high and high school.

INSTRUMENT FORMAT

The instrument consists of 10 items in Likert format.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 15 minutes for completion. Directions are included with the instrument.

SCORING

The instrument is hand scored. The total score is the sum of the score values assigned to each of the 10 items. A high score indicates high career commitment.

DESCRIPTION

Development. The 10 items in the inventory were adapted from the Life-Style Index by Shirley Angrist. The Angrist instrument was designed to measure whether a woman would or would not pursue a career under five home and family conditions, or whether she would pursue training beyond a bachelor's degree. The Career Commitment Inventory asks the respondent to indicate how she foresees her future marriage and occupational situations.

Reliability. Test-retest procedures were used to establish the reliability of the instrument. Two administrations were carried out, with a three-week interval between administrations, on data contributed by 38 twelfth-grade and 46 eighth-grade girls. Test-retest reliability coefficients for the two grades were .84 (grade 8) and .83 (grade 12).

Validity. Content validity was established on the basis of the judgments of 22 counselor educators. In addition, evidence of the predictive validity of the instrument is provided by a study of the relationships between occupational choice, strength of career commitment and self concept in adolescent girls. As predicted, strength of career commitment was positively related to atypical career choice and to a more masculine self image.

SAMPLE ITEMS

(1) As far as you can tell, how far do you plan to continue your education after high school?

Not at all	1
Further training but not college	2
Two-year college degree	3
Four-year college degree	4
Training beyond college	5

Below are some conditions under which women work. Rate yourself on these by speculating how you might feel about holding a job after marriage. Circle 1, 2, 3, 4, or 5 on your answer sheet according to whether you would want to work under each condition.

(3) One child of preschool age; husband's salary adequate

Definitely not	1
Probably not	2
Undecided	3
Probably would	4
Definitely would	5

(8) Children have grown up and left home; husband's salary adequate

Definitely not	1
Probably not	2
Undecided	3
Probably would	4
Definitely would	5

(10) Fifteen years from now, you would like to be

A housewife with no children	1
A housewife with one or more children	2
An unmarried career woman	3
A married career woman without children	4
A married career woman with children	5

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Kotcher, E. V., & Gillman, E. S. Identifying young women who maintain early decisions to enter careers in science and technology. Final report. (National Science Foundation Grant No. GY-11313). Hempstead, New York: Hofstra University.

CAREER DEVELOPMENT INVENTORY (CDI) ADULT FORM

AUTHORS

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Box 205
Teachers College
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New York, New York 10027

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Career development

TARGET POPULATION

The instrument is designed to be used with both young and mature adults of both sexes.

INSTRUMENT FORMAT

The instrument consists of 120 items in Likert format, with 30 items representing each of four vocational life stages: exploration (ages 14-25), establishment (ages 24-45), maintenance (ages 45-60), and decline (ages 60 and on). The inventory is based on self-ratings and is designed to measure the individual's view of his or her own vocational development.

ADMINISTRATION

The instrument is designed for group administration and requires 20 minutes for completion. Directions are printed on the instrument.

SCORING

The CDI is designed for hand scoring. The instrument yields scores for each of the four vocational life stages and for three subscales in each stage representing types of career concerns characteristic of that stage. Life stage scores are obtained by summing the scale ratings assigned to all the items in a stage. These scores indicate 1) vocational tasks already completed by the respondent, 2) tasks in which he or she is currently involved, 3) those of major concern to him or her, and 4) tasks not yet begun. Scores may be evaluated by comparing actual life stage as determined by the inventory to expected life stage according to the individual's age, or by comparing the scores of persons of similar status and age. Career concern scores indicate the tasks and life stages with which the individual is presently most concerned. Career concern scores are computed by summing all items with scale values of 2, 3, 4. Those items assigned scale values of 1 and 5 are not scored, since they are considered to be not of concern to the individual.

DESCRIPTION

Development. The CDI is based on an inventory developed by Robin Zelkowitz under the supervision of Donald Super and Albert Thompson. The present form of the instrument includes 120 items, of which 44 were adapted from the Zelkowitz instrument and others were drafted and edited by the three authors. The final set of items was determined by factor analysis, which led to elimination of some items and shifting of others to more appropriate substages. A second factor analysis performed on the revised Career Development Inventory indicated that the reorganization was effective and that all items clustered under their appropriate stages and substages. This instrument measures career or developmental task concerns, but does not claim to assess other aspects of vocational maturity (see Super and Kidd, in press).

Reliability. Reliability data are reported for the earlier version of the instrument developed by Zelkowitz and consisting of 44 items. Internal reliability, established on data contributed by 300 males was computed at .93 using the Spearman-Brown prophecy formula and at .86 using the coefficient alpha procedure.

Validity. Studies of construct and criterion validity are described in the Preliminary Manual accompanying the CDI, Adult Form I. The construct validity of the CDI is based on four analyses of data. These studies show that men at mid-career are more concerned with the tasks of Establishment and Maintenance than with those of Exploration and Decline, that CDI scores are correlated with interviewer ratings of vocational maturity, that CDI scores differentiate college ROTC and non-ROTC students, with the ROTC students showing more active career planning and exploration, and that CDI scores are useful in predicting job satisfaction. The capacity of the CDI to differentiate groups in the predicted direction in a wide variety of different situations as illustrated by these studies is considered to be evidence of its construct validity. Evidence of the concurrent criterion validity of the CDI is based on its correlation with several behavioral indices, such as job satisfaction, career satisfaction, career establishment, current occupational level, and managerial adaptiveness in adult males and degree of work orientation in adult females.

Other technical information. The Career Development Inventory, Adult Form I, is regarded by the authors as still in a developmental stage and is available at present only for research purposes. After further revision, the Career Development Inventory will be available to practitioners as a diagnostic and counseling instrument. It may also be useful for evaluating projects and programs providing career and occupational information.

SAMPLE ITEMS

Rate each statement according to the following scale:

5 = I have already done this.
4 = I am now doing what needs to be done.
3 = I know what to do about it.
2 = I have thought about it but do not yet know what to do about it.
1 = I have not yet thought much about it.

Career Concerns	1	2	3	4	5
Finding out where my talents really lie.					
Finding what line of work I am really best suited for.					
Choosing among the best career alternatives I now see.					
Deciding what kind of training to get for the field that really interests me.					
Developing a life-style that really suits me.					

AVAILABILITY

A copy of the instrument and manual may be purchased from the authors with their permission to reproduce and use specifically for a research project and with the proviso that the results be shared with the authors. The instrument is copyrighted.

REFERENCES

Morrison, R. F. *Career adaptivity: The effective adaptation of managers to changing role demands*. Toronto: University of Toronto, mimeograph, 1975.

Mossop, J. *An evaluation of Super's Career Development Inventory (Adult Form) using a British sample*. London: Birkbeck College, mimeograph, 1977.

Super, D. E. Vocational maturity in mid-career. *Vocational Guidance Quarterly*, 1977, *25*, 294-302.

Super, D. E. & Kidd, J. M. Vocational maturity in adulthood: Toward turning a model into a measure. *Journal of Vocational Behavior*, in press for 1979.

Super, D. E., Zelkowitz, R. S, & Thompson, A. S. *The Career Development Inventory, Adult Form I: Preliminary manual*. New York: Columbia University, Teachers College, mimeograph, 1975.

CAREER EDUCATION NEEDS ASSESSMENT

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Glen D. Rask
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DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale and cognitive test

MEASUREMENT VARIABLES

Career interest and knowledge

TARGET POPULATION

The instrument is designed for use by elementary and secondary school teachers, administrators, and students.

INSTRUMENT FORMAT

The Needs Assessment package contains a separate instrument for each population. For teachers and administrators, the form consists of four sections: (1) personal data and work experience; (2) and (3) attitudes and knowledge about career education; and (4) needs. The instrument, consisting of 68 items, is primarily a Likert-type scale, but also contains multiple-choice and open-response items. The instrument is a self-contained booklet in which the respondents write their answers.

All three student forms are self-contained booklets. For students in grades K-3, the Needs Assessment is an individual interview form containing 60 items related to occupational awareness, community awareness, and self-development. For students in grades 4-6, the form includes 45 multiple-choice items concerned with occupational awareness, attitudes and self-awareness, and career development. For students in grades 7-12, the form includes 45 multiple-choice items related to occupational exploration and career guidance and development.

ADMINISTRATION

Directions for administration for each of the target groups are included with each instrument and are also contained in the guidebook (see references). The Needs Assessment for Teachers and Administrators is untimed and self-administered. It requires approximately 15 to 30 minutes to complete. For grades K-3, an individual interview is required, which takes approximately 30 minutes per student. For grades 4-12, the test is administered to groups and requires from 15 to 45 minutes, depending upon the reading abilities of the students.

SCORING

A scoring key and suggested use of scores are provided in the guide cited in the references.

DESCRIPTION

Development. The four instruments in the Needs Assessment package provide a measure of the level of understanding about career education for four populations: teachers and administrators and students in grades K-3, grades 4-6, and grades 7-12. The instruments also can provide information on where to place emphasis for career education and which steps need to be taken to integrate career education in the classroom.

The Needs Assessment for Teachers and Administrators provides a means for analyzing the position of teachers and administrators regarding career education and to provide information for planning a career education program. For K-12 students, the instrument is designed to determine the awareness level and needs of students relative to the concepts of career education. The instrument states that "data gathered will be used for program planning only."

The guidebook indicates that each instrument was field tested and evaluated. Data are not presented.

Reliability. Reliability was established through use of the split-half technique and the Spearman-Brown Prophecy Formula. Reliability scores are reported as follows: teachers and administrators, *r* = .78; grade K-3 students, *r* = .90; grade 4-6 students, *r* = .84; grade 7-12 students, *r* = .77.

Although the particular reliability sample was not described, the author notes that the instrument has been used by projects in Kansas, Wyoming, Colorado, California, Nebraska, Guam, and Puerto Rico.

Validity. A team of 10 career education experts and 21 teachers using career education in their classes independently reviewed each instrument. The authors revised or eliminated items identified as not consistent either with the total instrument or with accepted career education principles.

SAMPLE ITEMS

Teachers and Administrators Section

A = Strongly agree
B = Agree
C = Disagree
D = Strongly disagree

21. Schools are doing an adequate job of preparing students for the world of work.

49. Which school personnel are most influential in effective career decision making?

    A. Counselors
    B. Teachers
    C. Cocurricular supervisors
    D. No one in school

K-3 Students Section

(Teacher reads a job description and asks students to name the job.)

10. A person who cares for pets and animals when they are sick or hurt. (Veterinarian)

STOP FOR KINDERGARTEN STUDENTS

15. A person who takes care of books and checks them out for use. (Librarian)

STOP FOR FIRST GRADE STUDENTS

19. A person who plans and designs buildings. (Architect)

Grades 4-6 Section

4. An understanding of soils is needed for which of the following occupations?

    A. Entomologist
    B. Farmer
    C. Launderer
    D. Grain miller

28. Satisfaction in your occupation will result in a more enjoyable home life.

A = Agree
B = Disagree
C = Don't know

Grades 7-12 Section

2. A landscape architect

   A. Develops new techniques for farming.
   B. Draws city and county zoning maps.
   C. Manages all kinds of earth-moving equipment.
   D. Designs the layout of outdoor areas.

25. A successful mathematics student would have the best advantage in which of the following jobs?

   A. Librarian
   B. Mechanical engineer
   C. Motel operator
   D. Sociologist

AVAILABILITY

The instruments are copyrighted and may be purchased from from:

Olympus Publishing Company
Two Olympus Plaza
1670 East Thirteenth South
Salt Lake City, Utah 84105

The authors would like copies of studies using the instruments.

REFERENCES

Blome, A. C., & Rask, G. D. Career education needs assessment introduction and interpretation guide. Salt Lake City: Olympus Publishing Company, 1975.

CAREER PLANNING SURVEY (CPS)

AUTHORS

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Robert Rossi
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Palo Alto, California 94302

DATE DEVELOPED

1975

INSTRUMENT TYPE

Survey questionnaire

MEASUREMENT VARIABLES

Career awareness and choice

TARGET POPULATION

The Career Planning Survey (CPS) is designed for use with secondary school students of both sexes.

INSTRUMENT FORMAT

The Survey contains 62 items in varied format: multiple choice, open-ended questions, checklists, and rating scales. Content areas include: (1) career and educational plans; (2) knowledge and attitudes about careers; (3) perceptions of influence on own career plans; (4) estimates of own abilities, interests, and values; (5) knowledge and attitudes about the career development process; (6) information about perceptions of the school and community; and (7) information about various background factors that are likely to be related to entering a scientific career.

ADMINISTRATION

The instrument was designed for group administration. Directions are printed on the form. Approximate administration time is one hour.

SCORING

The Survey was designed to be scored by individual items. The distribution of responses of various subpopulations to each item are to be studied one at a time.

DESCRIPTION

Development. The Career Planning Survey (CPS) was developed in a two-phase study supported by the National Science Foundation concerning scientific career development in high school students. The first phase involved the analysis of responses of a high school student sample drawn from the 1960 Project TALENT data base and tested again 11 years after high school graduation. This analysis was conducted in order to develop a Scientific Potential Index based on the high school abilities that best discriminate between having a scientific career and not having a scientific career 11 years after high school graduation. The second phase involved the development of the CPS to measure career interests in high school students. The instrument was administered to 1,142 students at 11 high schools in California, along with a battery of interest, knowledge, and abilities tests. Responses to the CPS were used to draw conclusions about characteristics of students planning scientific careers in 1975. Scores on the battery of other tests were used to compute a Scientific Potential Index for each student. Four scores are reported in the analysis of responses to each item on the CPS: the number of students who made the response, the percentage of students who chose the response who had expressed science career plans, the mean Scientific Potential for students who made the response and had nonscience career plans, and the mean Scientific Potential for students with science career plans. These scores are available in the project final report.

SAMPLE ITEMS

Thinking About Careers

3. What job, of any kind in the world, would you most like to have?

8A. (This question is for girls only.) Mark the circle for the choice that best describes you:

I am planning to be a housewife as a full-time permanent career.

I am planning to work until I get married and then I will be a housewife.

I am planning to work until I get married and will work after I get married only if my family needs extra money.

I am planning for a full-time career (other than housewife) whether or not I get married.

I have not thought much about planning a career.

Finding Out About Careers

25. What do you think is the best way to find out about a job?

33. Have you learned about people who work in SCIENCE jobs from books, magazines, TV, movies, etc? Yes __ No __

Student Information: Education

35. Do you think you will quit high school before you graduate?

46. Which best describes how you do your school homework?

I get it done early -- way before it is due.
I get it done but sometimes wait until the last minute.
Often I do not finish on time.

School and Community Information

53. How important are each of these things to most students at your school?

A. Extremely important
B. Very important
C. Moderately important
D. Of only slight importance
E. Of absolutely no importance

a. Dating
b. Getting good grades
c. Having a nice car
d. Running for school offices (such as student body president)
e. Getting scholarships
f. Playing on or rooting for a school team
g. School club activities
h. After-school athletics (just for fun)
i. After-school or weekend jobs

Career Information

58. Women can do the same kind of work as men:

Always Almost always Not very often Never

AVAILABILITY

The instrument may be reproduced from the report cited in the references. This report may be purchased from the American Institutes for Research. The authors would like copies of studies using the instrument.

REFERENCES

Gilmartin, K. J., McLaughlin, D. H., Wise, L. L., & Rossi, R. J. Development of scientific careers: The high school years. Final report. Palo Alto: American Institutes for Research, August 1976, (AIR-48200-8/76-FR). (ED 129 607)

CAREER QUESTIONNAIRE AND JOB PREFERENCE LIST

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DATE DEVELOPED

1976

INSTRUMENT TYPE

Cognitive test and attitude scale

MEASUREMENT VARIABLES

Career awareness and awareness of sexism; career preference

TARGET POPULATION

The instruments were designed for use with middle school-age girls.

INSTRUMENT FORMAT

The Career Questionnaire is a cognitive test consisting of a total of 23 items in varied format, including 4 true-false questions, 17 multiple choice questions and 2 other types of questions, all having to do with the occupational status of women. There is one attitude assessment item consisting of six job titles to which the subject responds by indicating whether, in her opinion, the job is appropriate for men, women, or both. The Job Preference List presents 138 job titles. The subject responds by circling the five job titles about which she would like more information.

ADMINISTRATION

The instruments are designed for group administration. Directions are printed on the instruments. The estimated time for completion is 10 to 15 minutes.

SCORING

Both instruments are hand scored. Responses to the Career Questionnaire are scored as correct or incorrect. A key provided for the Job Preference List indicates the 38 jobs classified as traditionally feminine. The subject's score is based on the extent of her interest in job titles outside the traditional women's fields.

DESCRIPTION

Development. The instruments were developed to assess the effects of a course designed to encourage early adolescent girls to recognize the potential of all occupations and to combat sex stereotyping in career choice. The instruments were pretested with a sample of eighth grade students similar to the subject population, and ambiguous items were subsequently reworded.

Reliability. Split-half reliability of the Career Questionnaire is reported at .94.

Validity. Content validity was determined by complete agreement among five counselor-educators that the questions were appropriate to the curriculum and the objectives. Criterion validity studies as such are not reported. However, the instruments discriminated in the predicted direction in two separate studies comparing experimental subjects who took a course unit in Women and Work with control subjects who did not. In both studies, the experimental groups performed significantly better on the Career Questionnaire (cognitive test) administered post-experimentally than the control groups. In the first study, the experimental group also performed significantly better on the Job Preference Test (attitude measure), but in the second study, a significant difference on the attitude measure was not found.

SAMPLE ITEMS

Career Questionnaire

10. In 1974, two job categories having very low percentage of women were

    clerical workers, managers.
    private household workers, craft workers.
    clerical workers, private household workers.
    craft workers, managers.

13. The average age (in years) of women working today is approximately

    23.
    28.
    35.
    42.

Job Preference List

Please circle five jobs that you are interested in finding out more about:

Land/Water Manager
Bookkeeper
Clerk Typist
Secretary
Computer operator

AVAILABILITY

The instruments are available along with a complete course outline (including activities, sample discussion questions, and factual course content) from the authors at duplicating cost plus postage. The authors would like copies of studies using the instruments.

REFERENCES

Cramer, S. H., Wise, P. S., & Colburn, E. D. An evaluation of a treatment to expand the career perceptions of junior high school girls. The School Counselor, November, 1977, 124-129.

CAREER ROLE IDENTIFICATION INVENTORY

AUTHOR

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American Institutes for Research
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DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale, interest inventory

MEASUREMENT VARIABLE

Career role perception

TARGET POPULATION

The instrument is designed for use with elementary school students, particularly those in grades 3-6.

INSTRUMENT FORMAT

The inventory has three parts: A, B, and C. All parts of the inventory present an identical list of 24 occupations. Parts A and B record the students' responses in regard to ideal and realistic occupational selection. Part C asks students to decide which occupations on the list are occupations for men, women, or both men and women.

ADMINISTRATION

The inventory is designed for group administration and items may be read aloud to students. Administration directions accompany the instrument. Administration time is from 10 to 15 minutes.

SCORING

The inventory is designed for hand scoring. Responses to Parts A and B are meant to be compared and interpreted according to traditional vs. nontraditional selections by students. Included with the instrument is a scoring key defining traditional and nontraditional choices. For Part C, scores of male and female stereotypy may be computed for each student. Scoring directions accompany the instrument.

DESCRIPTION

Development. Items for the inventory were derived from three different sources: Occupational Intentions Inventory (1969), Iglitzin (1970), and Looft (1972). A pool of 60 items was presented to 35 adults who were asked to indicate which items were characteristic occupations for men, women, or both men and women. Discriminatory items were based on 95% agreement among the adult population. Items that did not discriminate were eliminated. The remaining pool of items was then administered to a population of 76 third, fourth, and fifth graders. Discriminatory items were based on 95% agreement among the student population and agreement between adult and student populations. These development techniques resulted in an inventory of 24 items.

Reliability. Parts A and B were administered twice to a population of 76 third, fourth, and fifth grade students with a 2-day time interval. Test-retest reliability was computed at .70.

Validity. In addition to the discrimination test administered during the developmental stage, the instrument was presented to a panel of two teachers, two counselors, and two administrators to determine content validity. Content validity was based on appropriateness to grade level, the correlation of the intent and estimated results of the inventory, and the representativeness of items. Some evidence of criterion validity is provided by the results of the one study using the instrument in which experimental and control groups were compared. At the fourth- and fifth-grade levels, the experimental groups had a significantly lower stereotypy score on Part C than did control groups, as had been predicted. At the third-grade level, one control group received more treatment than did the experimental groups, thereby contaminating the scores. Parts A and B of the instrument also discriminated in the predicted direction. Girls at all three grade levels selected occupations that have been traditionally accepted as appropriate career roles for women. Boys' selections, regardless of grade level, were also traditional. More information on this study is found in the documents cited in the references.

SAMPLE ITEMS

Part A

Please read to students:

> What would you like to be when you grow up? Please circle your first choice only. If your first choice is not on this list, please circle the occupation that is most like your first choice.
>
> 1. Pilot
> 2. Athlete
> 3. Teacher
>
> .
> .
> .
>
> 24. Police officer

Part B

Please read to students:

> Imagine that you are grown up. What do you think you will really be doing? Circle one occupation only. If your first choice is not on this list, circle the occupation that is most like your first choice.
>
> 1. Pilot
> 2. Athlete
> 3. Teacher
>
> .
> .
> .
>
> 24. Police officer

Part C

> For the following list of occupations, check whether you think it is a man's occupation, a woman's occupation, or both a man's and a woman's occupation.
>
> 1. Pilot
> 2. Athlete
> 3. Teacher
> 4. Carpenter
> 5. Lawyer
>
> .
> .
> .
>
> 24. Police officer

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Parks, B. J. An exploratory study of the effects of a career-oriented curriculum. Unpublished doctoral dissertation, University of Northern Colorado, Greeley, 1974.

Parks, B. J. Career development - How early? The Elementary School Journal, 1976, 76(8), 469-473.

ENGINEERING STUDENTS QUESTIONNAIRE

AUTHOR

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Cornell University
Stone Hall
Ithaca, New York 14853

DATE

1976-77

INSTRUMENT TYPE

Survey questionnaire and attitude scale

MEASUREMENT VARIABLE

Career aspirations of engineering students

TARGET POPULATION

The instruments are designed for engineering students of both sexes at the freshman and sophomore college level.

INSTRUMENT FORMAT

There are three questionnaires, one for fall freshmen, one for spring freshmen, and one for fall sophomores. The three questionnaires are similar in format and item content. The Fall Freshman Questionnaire

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contains a total of 80 items: 54 multiple choice survey questions related to academic activities and ambitions and to extracurricular interests and 26 attitude questions in Likert format. The Spring Freshman Questionnaire contains 60 items, and the Spring Sophomore Questionnaire has 50 items. The two spring questionnaires are also available in Spanish.

ADMINISTRATION

The questionnaires are designed for group administration and take approximately 30 minutes to complete. The instruments have directions printed on the form.

SCORING

The questionnaires are not scored. Results yield a general picture of the career aspirations and demographic characteristics of the students.

DESCRIPTION

Development. The questionnaires were designed for a study of the biographical characteristics, attitudes, biographical expectations, and responses to engineering education of female engineering students. The study for which the instruments were developed surveyed a nationwide sample of male and female engineering students and focused on assessing the differences between these two groups. Complete results of each survey have been submitted to the ERIC System, as cited in the references. In all three questionnaires, some items were adapted from College Student Questionnaires - Part I by Educational Testing Service (copyright 1965). The rest of the items were designed by the research team conducting the study.

Validity. Some evidence of the instruments' validity is provided by the questionnaires' ability to discriminate between males and females in the predicted direction in administration to over 2,000 engineering students.

SAMPLE ITEMS

Fall Freshman Questionnaire

11. Which one of the following is the most important reason for your career choice?

    1. Job openings available
    2. Rapid career advancement
    3. High anticipated earnings
    4. Contribution to society
    5. Work with ideas
    6. Prestige of the profession
    7. Opportunity to use my special abilities and talents
    8. The work itself is interesting
    9. Opportunity to combine career and family
    10. Other

Spring Freshman Questionnaire

1 = Strongly agree
2 = Agree
3 = Neutral, no opinion
4 = Disagree
5 = Strongly disgree

49. The information I received from colleges last year provided a realistic description of engineering education.

52. My parents are enthusiastic about my being in engineering.

58. I am more strongly motivated to be an engineer than I was a year ago.

Spring Sophomore Questionnaire

17. Compared with most of your sophomore engineering classmates at this college, how much did you study during your sophomore year?

    1. Much less than most of my classmates this year
    2. Slightly less than most of them
    3. About the same as most of my classmates
    4. Slightly more than most of them
    5. Much more than most of my classmates this year

AVAILABILITY

The instruments are available from the author at duplicating cost plus postage. The author would like to receive copies of studies using the instrument.

REFERENCES

Ott, M. D. The men and women of the class of '79. Annals of Engineering Education, Engineering Education, December 1976, 67, 226-232.

Ott, M. D. Results of fall 1975 survey of engineering freshmen (revised. April 1977. (ED 141 231)

Ott, M. D. Results of spring 1976 survey of engineering freshmen. April 177. (ED 138 480)

Ott, M. D. Results of fall 1976 survey of engineering freshmen. May 1977. (ED 141 131)

Ott, M. D. Women students' plans for careers in engineering. Proceedings of the College Industry Education Conference, 1978. 62-64.

Ott, M. D. Experiences, aspirations, and attitudes of male and female freshmen engineers. *Engineering Education*, January 1978, *68*, 326-333, 338.

Ott, M. D. A comparison of black women and white women engineering freshmen. *Engineering Education*, April 1978, *68*, 758-760.

Ott, M. D. *Female engineering students--Attitudes, characteristics, expectations, response to engineering education*. Final report (National Science Foundation Grant SMI 75-18013 A01). Ithaca, New York: Cornell University, College of Engineering, June 1978. (ERIC Document Number not yet assigned)

Ott, M. D. Retention of men and women engineering students. *Research in Higher Education*, October 1978, *9*, 137-150.

Ott, M. D. Differences between male and female freshman engineers. *Journal of College Student Personnel*, November 1978, *19*, 552-557.

Ott, M. D. Sex differences in experiences and career plans of freshman engineering students. *IEEE Transactions on Education*, November 1978, *E-21*, 230-233.

NOTE: Additional 1977 surveys were submitted to the ERIC System in August 1977. ERIC Document Numbers had not been assigned at the time of this writing.

EQUAL VOCATIONAL EDUCATION - PRE- AND POST-TESTS FOR STUDENTS

AUTHORS

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Houston, Texas 77004

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Perception of women in labor market; career awareness

TARGET POPULATION

This instrument is intended for use with girls of secondary school age.

INSTRUMENT FORMAT

The instrument consists of 85 items divided into two sections. Section I consists of 59 items in Likert format measuring attitudes toward the role of women in the world of work. Section II consists of 25 multiple choice survey questions. Several of the items ask students to write an explanation of their answers. Questions in this section solicit information on the student's interest in vocational education, future plans, and the educational and occupation level of each parent. All responses are recorded on a separate answer sheet.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 30 minutes for completion. The same instrument is used for pretest and posttest administrations. Directions are printed on the test form.

SCORING

Scoring directions and key are not provided. However, it appears that Section I scores can be hand-calculated by summing points for each item. Responses on Section II may be compared for similarities and differences on pre- and posttest administration.

DESCRIPTION

Development. The instrument was developed to evaluate a project in Texas designed to increase and maintain female enrollment in traditionally male vocational programs. An original draft of the instrument was submitted to a 12-member advisory panel for review and was revised on the basis of panel input.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

Directions: For the following statements, decide on the degree to which you agree or disagree with each statement and then mark that answer on the separate answer sheet.

Possible responses:

A = I strongly disagree with this statement.
B = I disagree with this statement.
C = I have no feelings about this statement.
D = I agree with this statement.
E = I strongly agree with this statement.

Money is the only real reason for women working.

A woman can be a good mother while working full time as an auto mechanic.

Most men dislike intelligent women.

Most girls would laugh at a girl who enrolled in plumbing.

Possible responses:

A = Yes, I agree.
B = No, I disagree.

Very few women work.

Working women are taking jobs away from men.

Women can perform any job men can perform.

AVAILABILITY

The instrument appears in the final report of Project EVE (see references), which is available from the Institute for Labor and Industrial Education, University of Houston.

REFERENCES

Lerner, J., Bergstrom, F., & Champagne, J. E. EVE: Equal vocational education, Houston, Texas: Center for Human Resources, 1976. (Contract Nos. 52350387 and 62350237, Division of Occupational Research and Development, Texas Education Agency)

THE HARRINGTON/O'SHEA SYSTEM FOR CAREER DECISION-MAKING (CDM) (Systems I, S, and P)

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DATE DEVELOPED

1974 (System I)
1975 (System P)
1976 (System S)
1978 (Spanish form and revision of Systems P, S)

INSTRUMENT TYPE

Interest inventory

MEASUREMENT VARIABLES

Career abilities, values, and interests

TARGET POPULATIONS

The instrument is designed for students from junior high school through college and for other adults. The Spanish version is appropriate for bilingual or Spanish dominant populations.

INSTRUMENT FORMAT

The Career Decision-Making (CDM) System (which includes three distinct reporting systems) consists of a Survey Booklet plus interpretive materials which relate the subject's responses to occupational information. The Survey Booklet is in six parts: (1) Occupational Preferences -- respondent chooses 2 of 18 job groupings; (2) School Subject Preferences -- respondent chooses 2 of 14 school subject areas; (3) Future Plans -- respondent selects 1 of 9 possible plans for job training or advanced education; (4) Values -- subject chooses 4 of 14 job values; (5) Abilities -- subject chooses 4 of 14 abilities or talents he/she possesses; (6) Interests -- subject indicates whether he/she likes, dislikes, or is undecided about each of 120 activities and occupations.

The CDM is available with three different reporting systems: I, P, and S. System I, Interpretive Report, requires subjects to mark answers on machine-scorable answer sheets and provides a 20-page individualized, computer-generated interpretive report based on six career decision-making areas and 18 occupational cluster areas. This delivery system is similar to the Interpretive Report of the Strong-Campbell Interest Inventory (SCII). System P, Profile Report, also requires a separate, machine-scorable answer sheet and provides a single-page profile report giving raw score placement on six career scales. An Interpretive Report Folder is provided which assists subjects in interpreting the profile report. This delivery system is similar to the Ohio Vocational Interest Survey or Career Assessment Inventory. System S (available both in Spanish and in English) consists of a Survey Booklet and an Interpretive Folder in which subjects mark their responses. It is designed for self-administration, self-interpretation, and self-scoring. The Interpretive Folder provides information on required training, abilities, and other occupational information. This delivery system is similar to the Self-Directed Search.

ADMINISTRATION

The CDM is designed for either group or individual administration. Instructions for self-administration are included. Approximate administration time is 30 to 40 minutes. Complete instructions for administration are provided in the manual as cited in the references. English and Spanish versions of the manual are available.

SCORING

Scoring methods depend upon the system selected. Systems I and P are machine-scored by the distributor, and the scoring cost is included with the purchase of the answer sheets. Order sheets for scoring, mailing labels, and instructions are provided. System S is self-scored and results are self-interpreted.

DESCRIPTION

Development. The CDM is based theoretically upon Holland's hexagonal theory of career development (1973) which proposes that individuals identify with one or a combination of six personality types which correspond to six occupational environments. The authors' studies of interest measures convinced them that the Holland theory explained most of the variance measured by these interest inventories.

The authors developed the first CDM System, System I, in 1974; in 1975 they developed System P, and in 1976, System S. The 18 career clusters were developed by applying Holland's occupational classification system to the Worker Trait Groups in the Dictionary of Occupational Titles, Third Edition, Volume II, U.S. Department of Labor (1965) (DOT). In 1978, the CDM career clusters were revalidated, based upon the Fourth Edition of the DOT and using the current Department of Labor occupational information scheme.

During the development of the CDM, attention was given to meeting the National Institute of Education's Guidelines for the Assessment of

Sex Bias and Sex Fairness in Career Interest Inventories (1974). In a high school/college sample of 815 students the mean total scores and the average scale scores achieved by males and females were very similar (193.9 male total, 195.4 female total; 32.3 male average, 32.6 female average).

The Spanish version of System S was developed in 1978 after research into the applicability of the Holland model cross-culturally. The authors compared scores on a CDM English language sample of 815 students and a CDM Spanish language sample of 267 Spanish-speaking high school and college students and a Holland Vocational Preference Inventory (VPI) sample of 759 rural high school seniors, and they found that the Spanish-language CDM Scales showed the same inverse relationships between distance and sizes of correlations as did the corresponding English language CDM and VPI scales.

Reliability. Alpha coefficients as measures of internal consistency on the interest scales range for males (n = 436) from .86 to .90 and for females (n = 379) from .84 to .90. Average test-retest reliabilities after one month were .83 for a sample of 114 high school students and .88 for a sample of 72 graduate students. For the System S self-scoring instrument, scorer reliability has been estimated using three different samples: all seventh grade students (n = 72) at an ethnically mixed (25% bilingual) urban school; all eighth grade students (n = 188) at a blue collar suburban junior high school, and 46 ninth grade students at a middle class suburban school. The average correlations between pupil-calculated and author-calculated scores were .98 for males and .98 for females.

Validity. Evidence of construct validity was established by illustrating that the CDM interest survey exhibited the correlational patterns of Holland's hexagonal model. Further indication of construct validity is assumed by the relationship between the CDM scales and the corresponding Strong-Campbell Interest Inventory (SCII) General Occupational Theme Scales which were developed with Holland's assistance to measure the six categories in his model.

In addition to positive correlations with Holland scales and other inventories, concurrent validity was established by testing individual occupational and curricular groups. Eleven samples of people employed in a wide range of occupations and students studying varied majors were administered the CDM. The results showed a high degree of agreement between CDM summary codes and corresponding Holland codes.

Norms. The CDM uses raw scores in all report systems. The CDM Manual cites Cronbach's argument for the use of raw scores in interest measurement as opposed to normative data and percentiles.

The Manual does provide norms which are based on 5,008 subjects involving 31 samples from 20 states. The composition of the total group is 80% Caucasian, 11% Black, 7% Spanish-American, and 2% American Indian. Grade norms are also provided for each grade level 8 through 14. The Manual also reports norms for each of 31 samples and describes each in terms of type of community, median family income, ethnic and sex composition, and after-high-school experience.

Additional Information. The authors have converted System I to the 1978 Department of Labor job classifications, and at the time of this writing plans were underway to rewrite the Manual. Research is currently exploring the possibilities of administering the instrument to poor readers and to diagnosed special needs students such as the learning disabled and the mentally retarded.

SAMPLE ITEMS

System S

(1) OCCUPATIONS: Below are 18 job groupings that you might enjoy. Read the 18 groups and decide which group best describes the kind of work you would like to do....

1. Skilled Crafts - for example, carpenter, electrician, cook, tailor, auto mechanic, jeweler, electronic assembler, farmer, TV repairer, dental technician, military service

11. Clerical Work - for example, secretary, mail clerk, dispatcher, stenographer, typist, receptionist, hotel-motel clerk, cashier, bank teller, telephone operator, key punch operator, medical records clerk

(6) INTERESTS: Many activities and occupations are listed below. You are to indicate how you feel about each activity by writing in the box after the activity the number 2, 1, or 0. Write "2" if you like the activity... "1" if you can't make up your mind... "0" if you dislike it...

7. Repair automobile engines
20. Make plane and hotel reservations in a travel bureau
66. Listen to the works of great musicians
112. Carry out scientific studies about nature

AVAILABILITY

The CDM is copyrighted and may be purchased from:

Chronicle Guidance Publications, Inc.
Aurora Street
Moravia, New York 13118

The author would like copies of studies using the instrument.

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KUDER OCCUPATIONAL INTEREST SURVEY (OIS), FORM DD

AUTHOR

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DATE DEVELOPED

1966; revised materials to be published in 1979

INSTRUMENT TYPE

Interest inventory

MEASUREMENT VARIABLE

Occupational interests

TARGET POPULATION

The instrument is designed for use with high school and college students and other adults.

INSTRUMENT FORMAT

The Kuder Occupational Interest Survey (OIS) contains 100 items in forced-choice format. Each item consists of three statements about different kinds of activities. In each group of three, the subject is to mark the activity he or she prefers most and the activity he or she prefers least.

ADMINISTRATION

The instrument is designed for group or individual administration. Directions are printed on the form. The OIS is not a timed instrument. Each person should be given enough time to mark his/her responses to every group of activities. Generally, people require about 30 minutes to complete the inventory. A preliminary instruction period may take up to 15 minutes. Complete information, background materials, and directions are provided in the manual as cited in the references.

SCORING

The instrument is designed for machine scoring, which is done through the SRA scoring service at no extra cost. A Report of Scores presents the subject's scores on the occupational and college major scales, showing scores in rank order on both the male and female norms.

DESCRIPTION

Development. A systematic approach to item development was employed. The items were developed in accord with the following criteria: (1) Items should include a sample of as many vocational and personal interests as possible. (2) The inventory should be short enough to be completed in approximately half an hour. (3) Items should differentiate between occupational groups and not especially discriminate within occupational groups. (4) Occupational titles should be avoided. (5) Activities should be generally well understood. (6) Vocabulary should be at approximately sixth grade level. (7) A check should be developed for degree of confidence in scores obtained. (8) Scoring should be simple. (9) Potentially intrusive or offensive items should be omitted. (10) Item format should be free of response bias.

The 15 areas measured by the Kuder Preference Records A and C were included in the OIS, plus two new areas concerned with (1) preference for working independently, and (2) preference for acting spontaneously.

The 17 areas measured by the OIS have been found to be related to one or another of a wide range of occupational choices. The relative independence of these areas is demonstrated in the results of an item intercorrelation study where none of the correlations was above .40 and only seven were above .30. Examples of these 17 areas include: preference for working with ideas, preference for avoiding conflict, preference for acting spontaneously in a carefree manner, outdoor, mechanical, and persuasive.

A new feature of the OIS may represent improved usefulness of the inventory for women. Of the 119 occupational scales, 40 have been developed on women subjects. Of the 48 college major scales, 19 have been developed on women subjects. Since May 1974, all subjects receive scores on all scales, regardless of sex. There are also eight experimental scales on which scores are reported for each individual. Developers expect these will prove useful in studies of sex differences in interest measurement, maturation of interests, and other variables. Although the items are the same, developers consider the Kuder Occupational Interest Inventory to be substantially different from the Kuder Preference Record Occupational (Form D) because of the new approach of the OIS to the measurement of interest, providing better distinctions between occupational groups.

Reliability. The reliability over time (i.e., the stability) of an individual's scores on a number of scales was determined by administering the OIS twice to 100 high school seniors and college students with a two-week interval between administrations. The median reliability for all cases was .90. In another study, individual test-retest reliabilities were computed for 92 high school senior boys and 50 college senior women on 142 scales. For the boys the median reliability was .93, and for the women, the median reliability was .96.

A study involving 93 Duke University engineering students demonstrated considerable stability of individual profiles over a period of approximately three years. The students had taken the OIS as freshmen and again as seniors. Median reliability for the total group was .89.

Validity. Evidence that the OIS measures what it proposes to measure was studied in a series of validation procedures focusing on the problem of test discrimination, or more specifically, how successfully the OIS scores can differentiate between two occupational groups, rather than between an occupational group and a general reference group representing a cross section of occupations. One validity study concerned errors of classification, or the frequency with which members of one occupational group received a higher score on an occupational scale other than their own. Responses of six cross-validation groups of 90 subjects each were scored twice on scales for their own occupation and for the other five occupations, first on Form D, using a general reference group, then with the OIS scoring system. Errors of classification were 32% less using the OIS system. The incidence of misclassification averaged 6% when ties were counted as errors and 5% when they were not. Another error-of-classification study involved all 30 core groups scored on 30 scales. In this study, the mean classification error was 6.2%. It was noted that misclassification usually occurred in closely related fields, such as between the mathematician and chemist scales, or scores in different engineering fields.

Another procedure used to establish the ability of the scales to classify correctly involved a study of the frequency of differences between an individual's score on his or her own scale and his or her highest score. The 3,000 core group members were used for this study. Only 10% showed a significant difference between the two scores.

Evidence of predictive validity was found by Zytowski (1976) in a study involving over 1,000 men and women who had taken the Kuder Preference Inventory 12 to 19 years earlier. Fifty-one percent of the 882 people with usable scores were employed at the time of the follow-up in an occupation that would have been expected from their OIS scores. The college major scores were also found to be predictive.

A second prediction study (Zytowski & Laing, 1978) followed up on 206 persons who also had taken the Kuder Preference Inventory 12 to 19 years earlier. Slightly over 43% of the sample were in occupations corresponding to their five highest-ranked scales using own-gender norms, and over 50% were in occupations corresponding to their five highest ranked scales on other-gender norms.

Norms. The problem of accurate, non-sex-biased interpretation and use of other-gender-normed interest inventory scales has been investigated by Diamond (1979a and 1979b). The OIS was developed with separate male and female norms because men and women, even in the same occupation, have been shown to respond differently to certain items. These sex differences may be attributable to societal influences, and it may be that as more men and women enter nontraditional occupations, these differences will diminish. Ideally, the instrument would present norms for men and for women on every scale. However, since even in 1977 the U.S. Department of Labor figures indicate that most women work in a narrow range of jobs, it has not been possible to collect normative data for women for many of the occupational scales. It has been found that although scores for an individual are generally lower on other-gender normed scales than on own-gender normed scales for the same occupation or college major, they tend to fall roughly in the same rank order on the two sets of norms. (Diamond & Raju, 1975; Zytowski & Laing, 1978). A new format on the OIS Report of Scores has simplified the comparison of a subject's scores on both own- and other-gender responses. The publishers suggest using the new report form by evaluating individual scores on other-gender norms with reference to where they would rank with scores on own-sex norms. The Report Form shows the same scores on all scales for both males and females and presents a profile that simplifies identification of the individual's traditional or non-traditional interests.

A complete description of the criterion groups involved in the development of the OIS scales is contained in the General Manual. About 218 scales have been developed, based on data from over 60,000 people.

Other Information. At the time of this writing, the OIS manual and entire review set of materials was under revision and was scheduled for publication in September 1979.

SAMPLE ITEMS

... In each group, you are to choose the activity you prefer most and blacken the circle marked M opposite that activity; in the same group you are to choose the activity you prefer least and blacken the circle marked L opposite that activity....

10. Visit an exhibit of famous paintings
    Visit an exhibit of various means of transportation
    Visit an exhibit of laboratory equipment

47. Count and make a record of the cash received in a bank
    Decide whether to make each loan requested from a bank
    Cash checks for people in a bank

64. Design the scenery for a play
    Make a chemical analysis of a new toothpaste
    Write an article for homemakers on how to repair household equipment

AVAILABILITY

The OIS is copyrighted. The instrument and accompanying materials may be purchased from:

Science Research Associates
155 North Wacker Drive
Chicago, Illinois 60606

The author would like copies of studies using the instrument.

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MINNESOTA IMPORTANCE QUESTIONNAIRE (MIQ)

AUTHORS

E.G. Gay
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R.V. Dawis
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Minneapolis, Minnesota 55455

DATE DEVELOPED

1967, revised 1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Vocational needs (reinforcement preference[illegible]

TARGET POPULATION

The instrument is designed for use with high school and college students and other adults.

INSTRUMENT FORMAT

Two forms of the Minnesota Importance Questionnaire (MIQ), a paired and ranked form, are available. The paired form includes 210 items which are divided into comparative pairs of vocational need statements. The respondent marks which of two choices is 'more important to me in my ideal job' for items 1-190, and marks 'yes' or 'no' for items 191-210 (statements about 'on my ideal job it is important that...').

The ranked form consists of 21 groups of five statements about the respondents' ideal job. The respondent ranks these sets of five statements from '1 = most important' to '5 = least important'. The respondent also marks 'yes' or 'no' for 21 statements - "On my ideal job it is important that...."

Both forms measure the following 20 need dimensions important to job satisfaction:

Ability Utilization
Achievement
Activity
Advancement
Authority
Company Policies & Practices
Compensation
Co-workers
Creativity
Independence
Moral Values
Recognition
Responsibility
Security
Social Service
Social Status
Supervision-Human Relations
Supervision-Technical
Variety
Working Conditions

The MIQ test booklet is reusable; there are separate answer sheets. Spanish and French language editions are available.

ADMINISTRATION

The MIQ can be administered to groups or individuals. The paired form takes 30 to 40 minutes to complete, while the ranked form takes 15 to 25 minutes. A minimum 5th grade reading level is suggested. The manual includes directions for the administrator.

SCORING

The MIQ is machine scored by the University of Minnesota Vocational Psychology Research scoring service, which provides a two-page report for each individual. Scoring includes computation of (1) adjusted scale values indicating the level of importance of the individual's reinforcer preferences; (2) a total circular triads score indicating if the MIQ is invalid; and (3) error bands indicating the extremes to which the scale value could move. The profile is interpreted in terms of the needs of the individual. It provides information on (1) the correspondence of the individual's need pattern to Occupational Reinforcer Patterns (ORPs); (2) 50 occupations with ORPs most similar and 50 occupations with ORPs most dissimilar; and (3) for each occupation listed, (a) the correspondence index for that occupation, (b) a prediction of job satisfaction, (c) the occupation's cluster number in the Minnesota Occupational Classification System, and (d) references to additional information in the two volumes of Occupational Reinforcer Patterns. The report also includes a validity score and an indication of the precision of the score for each need dimension.

DESCRIPTION

Development. The MIQ was developed to measure vocational needs as required by the Theory of Work Adjustment (Dawis, England, & Lofquist, 1964). The first form of the MIQ, a modification of the N-Factor Questionnaire (see Weiss, Dawis, England, & Lofquist, 1964), was a Likert-type scale. In 1965, a pair-comparison form, including 380 items, emerged as an improvement over the earlier version. Still another revision designed to improve scaling properties and reduce administration time came out in 1967. Data on this form were collected from nine diverse populations including almost 5,000 people. A subsequent 1975 edition of the MIQ was developed.

The MIQ provides a measure of an individual's vocational needs. It was developed as part of the University of Minnesota's work adjustment project. Suggested counselor uses for the MIQ include the following: (1) assessing vocational needs of a client in the context of vocational planning; (2) preparing for the counseling relationship by examining the client's reinforcer preferences; (3) assessing changes in the client's vocational needs; and (4) helping a client plan effective and satisfying use of nonwork time. The MIQ permits comparison of the vocational needs of individuals with measured reinforcers in 148 occupations.

The MIQ profile report form is being revised at the time of this writing. The new form will group need scales according to values, e.g., Ability Utilization and Achievement will be grouped under Achievement Values, Creativity and Responsibility under Autonomy Value (see Lofquist & Dawis, 1978). The report on correspondence with ORPs will also be revised to list the occupations in six groupings called Occupational Reinforcer Clusters.

A new Minnesota Occupational Classification System (MOCS II) is being prepared, which will include over 1,000 occupations classified by ability-group membership and occupational-reinforcer-cluster membership.

The MIQ manual is also being updated to take account of the above revisions, and will also update validity, reliability, and norm information.

Reliability. The reliability sample included nine subject groups: four groups of college students, mostly sophomores (n = 42, n = 146, n = 157, and n = 283); two groups of high school students (n = 73 and n = 180); a group of night school students (n = 27); a group of people from a "New Careers" program (n = 53); and a group of college juniors and seniors (n = 38). Hoyt reliability coefficients for each scale for the nine groups, ranged from .77 to .81.

The samples described above plus a group of 182 vocational-technical high school women were tested and retested at intervals ranging from immediately to 10 months. Median score stability coefficients ranged from .48 to .89. Profile stability was also demonstrated by the same test-retest; median stability coefficients ranged from .70 to .95. For the 10-month period, the coefficient was .87, showing that profiles are relatively stable over periods of about one year. Profiles are more stable than scale scores.

Validity. Data from the MIQ support hypotheses from the Theory of Work Adjustment as described in detail in the manual. The test forms seem to be able to differentiate among groups. The manual provides some evidence that discriminant validity is reflected in the scale intercorrelations and the factor structure of the MIQ scales.

Additional Information. In the 1975 version of the MIQ, the item beginning "my boss would train his men well" has been revised to read "my boss would train the workers well" (see sample item 16 below). The most recent revision of the manual was in 1971.

SAMPLE ITEMS

Ranked Form

Rank statements follows:

1 = most important
2 = next most important
3 = next most important
4 = next most important
5 = least important

Group 4: On my ideal job. . .

a. The company would administer its policies fairly.

b. I could try out some of my own ideas.

c. I could do something that makes use of my abilities.

d. My co-workers would be easy to make friends with.

e. I could be "somebody" in the community.

Group 16: On my ideal job. . .

a. The job would provide for steady employment.

b. My pay would compare well with that of other workers.

c. My boss would train the workers well.

d. I could be "somebody" in the community.

e. I could do the work without feeling that it is morally wrong.

Paired Form

Ask yourself: Which is more important to me in my ideal job?

9a. My co-workers would be easy to make friends with.

OR

b. The job would provide for steady employment.

33a. I could do things for other people.

OR

b. My co-workers would be easy to make friends with.

83a. My pay would compare well with that of other workers.

OR

b. I could tell people what to do.

AVAILABILITY

The MIQ (copyright 1975, University of Minnesota, Vocational Psychology Research) is sold only to qualified users (Level B as defined by the American Psychological Association). Users should have some technical knowledge of test construction and use and also some knowledge of related fields such as statistics and guidance. Initial requests for copies of the MIQ should include a description of how it will be used and the professional qualifications of the persons who will use it. The MIQ may be ordered from:

Vocational Psychology Research
Department of Psychology
Elliott Hall
University of Minnesota
Minneapolis, Minnesota 55455

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OCCUPATIONAL ATYPICALITY INVENTORY

AUTHOR

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Mineola, New York 11501

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Occupational choice

TARGET POPULATION

The instrument is designed to be used with students of junior high and high school age.

INSTRUMENT FORMAT

The instrument consists of a list of 63 occupations. The respondents are asked to select the one occupation from the list which they expect to enter after completing their education. If none of the occupations listed reflects the students' desired career, they may fill in their choice under item 64.

ADMINISTRATION

The instrument is designed for group administration and requires approximately five minutes for completion. Directions are printed on the instrument.

SCORING

Each occupation in the list is identified as being either feminine or masculine according to 1972 Bureau of Census figures. An occupation is considered feminine if more than 20% of the persons employed in that occupation are female. An occupation is considered masculine if 20% or fewer of the persons employed are female. As described in the report accompanying the instrument (see references), a response is scored as occupationally atypical if a female subject indicates a career choice keyed as masculine, and typical if a female subject indicates a career choice keyed as feminine. The reverse applies for male subjects.

DESCRIPTION

Development. The 63 occupations listed in the instrument represent four categories of occupations collapsed from the ten U.S. Census Bureau classifications: (1) professional, (2) managers, administrators and sales workers, (3) clerical and kindred, and craftsmen, and (4) operatives, transport, laborers, farm, service, and private household occupations. Items in the list were selected to be representative of all levels in an hierarchical order of occupational and educational status, as well as to be representative of masculine and feminine occupations.

Reliability. Test-retest procedures were used to establish data on the reliability of the instrument. The instrument was administered twice, with a three week interval between administrations, to a sample of 38 twelfth- and 46 eighth-grade girls. The reliability coefficient was calculated as the percentage of change in occupational choice from one administration to the next. Change was indicated only if, on the second administration, the young woman chose an occupation assigned to a different sex category than the occupation chosen at first administration. There was 92% consistency in sex category of occupational choice among eighth graders; 100% consistency among twelfth graders.

Validity. Some evidence of predictive validity is provided by a study of the relationships between occupational choice, strength of career commitment and self concept. As predicted, adolescent women making atypical occupational choices were stronger in career commitment and more masculine in self perception than those making typical career choices.

SAMPLE ITEMS

Below is a list of occupations. From this list choose the one occupation you expect to make your career after you have completed your education. This means that only one of the following occupations will be chosen. If your choice of occupations is not included in this list, choose the one which is closest to it. Choose one even if you have not definitely made up your mind. If you feel very strongly that none of the occupations are close to your choice, fill in the name of your choice in OTHER.

1. Actor
2. Bank Teller
3. Dentist
4. Manager, Clothing Department in Department Store
5. Pharmacist
6. Truck Driver

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage.

REFERENCES

Kotcher, E. V., & Gillman, E. S. *Identifying young women who maintain early decisions to enter careers in science and technology*. Final report (National Science Foundation Grant No. GY-11313). Hempstead, New York: Hofstra University.

OHIO VOCATIONAL INTEREST SURVEY (OVIS)

AUTHORS

Ayres G. D'Costa
David W. Winefordner
John G. Odgers
Paul B. Koons, Jr.

DATE DEVELOPED

1968, revised 1969, 1970

INSTRUMENT TYPE

Career interest inventory

MEASUREMENT VARIABLE

Career interests

TARGET POPULATION

The instrument is designed for high school and community college students.

INSTRUMENT FORMAT

The Ohio Vocational Interest Survey (OVIS) consists of 287 items: a 7-item Student Information Questionnaire and a 280-item Interest Inventory. Administrators have the option of adding eight local questions. Students receive scale scores for 24 subscales: manual work, machine work; personal services; caring for people or animals; clerical work; inspecting and testing; crafts and precise operations; customer services; nursing and related technical services; skilled personal services; training; literary; numerical; appraisal; agriculture; applied technology; promotion and communication; management and supervision; artistic; sales representative; music; entertaining and performing arts; teaching, counseling, and social work; and medical.

There is a reusable student booklet and a machine-scorable answer form on which students fill in circles to mark their responses. For the Student Information Questionnaire, students respond to multiple-choice items. The 280 Interest Inventory items call for response to job activities on a 5-point Likert-type scale.

ADMINISTRATION

The OVIS is intended for group administration. A manual of detailed directions for administration is available. The manual recommends student orientation to interests and interest measurement to ensure that the OVIS results will be valid. OVIS is an untimed instrument, usually requiring 60 to 90 minutes. The directions state that one sitting is preferred, but two are acceptable except when the local survey section is used with 8th and 9th grade students, in which case two sittings may be more desirable.

SCORING

The OVIS is machine-scored. The Data Services Division of the Psychological Corporation provides the only scoring service for the OVIS. Its basic service scores the answer sheet and provides two copies of a student report folder for the student and counselor. The student report folder explains how to read a profile chart. The 24 OVIS scale scores can be interpreted without reference to norms or by comparison with national norms, local norms, or both. Percentile rank and stanine norms are provided by grade and sex. Also reported is a scale clarity index for each scale. Available optional services include school and system summary reports, permanent record labels, list reports, IBM work cards, and computer tapes.

DESCRIPTION

Development. The OVIS was developed to assist students with their educational and vocational plans. It can be used for group or individual exploration of the world of work in order to help students choose a high school program and make post-high school plans, to help potential dropouts make vocational plans consistent with their interests and abilities, to assist guidance counselors in planning occupational units for group guidance classes, to serve as a basis for building an occupational information file, to help administrators plan for curriculum expansion, and to identify groups of students interested in specific educational and vocational programs.

The OVIS was derived from the theoretical construct of the Cubistic Model, built on the assumption set forth in the Dictionary of Occupational Titles that data, people, and things are essential elements of any job.

Reliability. The reliability sample included every fifth male (8th grade n = 983-1,014; 10th grade n = 878-900) from grades 8 and 10 of the standardization population. Coefficients for the 24 OVIS scales ranged from .80 to .94.

A stability study involved 650 students (part of the standardization sample) who were tested in 8th grade and again in 10th and 12th grade. Median correlation coefficients were as follows:

	Grade 8 - 12		Grade 8 - 10		Grade 10 - 12	
	Median	Range	Median	Range	Median	Range
Females	.460	.35-.55	.555	.43-.68	.645	.49-.71
Males	.535	.43-.67	.565	.50-.65	.652	.51-.77

These data support previous findings that students' vocational interests become more stable as they approach the end of high school.

In addition, two-week test-retest studies involved 1,251 8th-grade students from five Arkansas schools and 1,108 10th grade students from 18 Wisconsin schools. Reliability coefficients ranged from .72 to .90.

Validity. The theoretical construct for the OVIS is the Cubistic Model based on the U.S. Department of Labor Dictionary of Occupational Titles (DOT) assumption that data, people, and things are essential elements of any job. Thus the DOT served as the validating source for item writing. The authors set forth that correlations for items with all 24 scales must show an item having higher correlations with its own scale than with any other scale and a correlation of higher than .60 with no more than three other scales. Item-scale correlation had to be at least .50 for the item to be acceptable. Additionally, the scale itself should not correlate above .70 with more than three other scales and the correlation between two scales should not exceed the reliability coefficient of either scale. Intercorrelations of the 24 scales are based on a group of 570 male and 538 female 10th grade students from the test-retest reliability study conducted at the time of the standardization.

Norms. To provide a cross-section of the jobs covering the world of work, the OVIS was standardized in diverse geographical settings. The 10 states identified as representative of the 10 U.S. geographical regions were Alabama, California, Colorado, Iowa, Massachusetts, North Carolina, Ohio, Oregon, Pennsylvania, and Texas. In each state, school districts were drawn from the urban, suburban, and rural areas identified by census data as having employment patterns approximating those of their state. During February 1969, over 45,000 students in grades 8-12 in 43 school districts took part in the national standardization program. In 1972, norms were developed for community college students, based on a sample of 772 community college students in Florida, Missouri, New York, and Washington.

Additional Information. The OVIS Manual for Interpreting presents a detailed discussion of validity and reliability. In addition, national norms, based on the standardization sample, are reported separately for each grade and sex. Local norms can be developed based on grade and sex reference groups, which should contain a minimum of 100 students. The Psychological Corporation has produced a bibliography of 90 references to the OVIS. In addition, two papers on how the OVIS avoids sex bias describe some aspects of interest inventories that have been traditionally sexist.

The Third Edition of the DOT contains sex-referenced job titles. The Fourth Edition, which became available in 1977, eliminates sex-referenced terminology. The OVIS was based on the Third Edition and the interpretive materials (Guide to Career Exploration and Manual for Interpreting) use the job terminology of that edition. A revision of the OVIS is underway at the time of this writing. The new instrument will be standardized in 1981 and published in 1982.

SAMPLE ITEMS

L = Like very much
l = Like
n = Neutral
d = Dislike
D = Dislike very much

9. Grind metal to the correct size.

41. Make drawings and other illustrations for schoolbooks.

100. Address business envelopes.

161. Deliver telegrams or messages to people.

204. Use mathematical formulas to explain the results of an experiment.

244. Cook in a restaurant.

AVAILABILITY

The OVIS is copyrighted, 1969, 1970, by Harcourt Brace Jovanovich, Inc. and may be purchased from:

The Psychological Corporation
Subsidiary of Harcourt Brace Jovanovich, Inc.
757 Third Avenue
New York, New York 10017

The authors and the Psychological Corporation would appreciate copies of or notice of studies using the instrument.

REFERENCES

Bligh, H. F., D'Costa, A. G., & Winefordner, D. W. Orienting youth to the world of work: The data-people-things approach. Normline, 3, 1. New York: Test Department, Harcourt Brace Jovanovich, Inc., 1970.

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Harcourt Brace Jovanovich, Inc., Test Department. OVIS Newsletter Numbers 1-7. New York: Author, 1971-1975.

Harcourt Brace Jovanovich, Inc., Test Department. Internal Consistency Study. Special Report Series, Report No. 1. New York: Author, 1972.

Harcourt Brace Jovanovich, Inc., Test Department. Program planning and evaluation: The local survey. Special Report Series, Report No. 2. New York: Author, 1972.

Harcourt Brace Jovanovich., Inc., Test Department. Suggested local survey questions. Special Report Series, Report No. 3. New York: Author, 1972.

Harcourt Brace Jovanovich, Inc., Test Department. The stability of vocational interests from grade 8 to grade 12. Special Report Series, Report No. 6. New York: Author, 1975.

Note: A complete OVIS bibliography is available from the Psychological Corporation.

PLANNING CAREER GOALS (PCG)

AUTHORS

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Marion F. Shaycoft
Mary B. Willis
American Institutes for Research
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Palo Alto, California 94302

DATE DEVELOPED

1975

INSTRUMENT TYPE

Interest and ability inventory

MEASUREMENT VARIABLES

Career interests, abilities, information, and goals

TARGET POPULATION

The instrument is designed for use with high school students.

INSTRUMENT FORMAT

Planning Career Goals (PCG) includes three multiple-choice test booklets plus a brief life and career planning questionnaire, printed in the answer booklet. The number of items and time limits for each subpart are shown below:

Test	No. of Items	Working time (in minutes)	Accumulated Time (in minutes)
Life and Career Plans	19	10	10
Ability Measure (10 subparts)	366	158	168
Interest Inventory (3 subparts)	300	30-45	198-213
Information Measures	240	80	278-293

ADMINISTRATION

The PCG is designed primarily for group testing. Detailed administration instructions are given in the manual. Included are suggested schedules ranging from two to six testing sessions, since total testing time is almost five hours.

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SCORING

The PCG can be machine or hand scored. CTB/McGraw-Hill's Compu-Scan scoring service may be used. Answer keys, acetate scoring stencils, and complete directions are available for hand-scoring.

DESCRIPTION

Development. The PCG is based on the extensive longitudinal data of Project TALENT, a national survey of about 400,000 high school students originally conducted in 1960. The need for the PCG was based on findings of Project TALENT indicating that students need help in making realistic career choices. More recent surveys have indicated further that general life style and quality of life choices are increasingly important in career decisions. Hence, the general approach of the PCG was to survey quality of life values and relate these to interests, abilities, and information. The PCG tests were designed to parallel the most discriminating TALENT tests. Experimental forms of the test were tried out in 1974; the results provided data for a comprehensive item analysis which was used in the selection of the final battery.

The PCG is a battery of tests designed to assist guidance and counseling personnel in helping students in grades 8-12 develop realistic and long-lasting educational and career goals.

The PCG combines measures of abilities, interests, occupational information, and a life and career plan into a single Career Planning Information System, and allows individuals to compare their own scores with those of thousands of people in different careers. The PCG is useful for individual counseling, group guidance, and career education programs.

Reliability. Split-half reliability coefficients were calculated for all PCG measures. These are reported in the Technical Bulletin No. 1 cited in the references, and can be summarized as follows:

Range of Reliability Coefficients over 12 Career Groups or Subtests

	Grades			
Test	8	9	10	11
Interest	.86-.97	.85-.97	.84-1.00	.84-.98
Information	.63-.87	.67-.89	.70- .87	.67-.87
Ability	.69-.94	.70-.94	.71- .93	.68-.91

Validity. Although the Technical Bulletin presents no predictive validity statistics, it states that the measures have been shown to have predictive validity by analyzing the data from the 5- and 11-year Project TALENT follow-up studies. Validities are based on the predictive data of persons now in various career groups, obtained when they were high school students.

To determine whether each PCG measure makes a unique contribution of information, the amount of unique variance in each measure was calculated. Sample statistics of this analysis for the 10th grade sample appear in the Technical Bulletin, which states that the results indicate that each of the measures is capable of making a unique contribution to the self-descriptions and the discriminations among the available choices of careers.

SAMPLE ITEMS

(Interest Measures)

A = I think I would like this very much.
B = I think I would like this fairly well.
C = I'm not sure whether I would like it.
D = I think I would dislike it.
E = I think I would dislike it very much.

Section 1 Occupations

19. Geologist
63. File Clerk
101. Efficiency Expert

Section 2 Occupational Activities

6. Play the lead in a play
39. Study how people learn
88. Teach handicapped children

Section 3 Current Activities

A = I like this very much
B = I like this fairly well
C = I don't have a definite feeling about this activity
D = I dislike it
E = I dislike it very much

15. Arrange to have school posters printed
53. Explain to a child why leaves change color
96. Operate a power lawn mower

AVAILABILITY

The PCG is copyrighted and may be purchased from:

CTB/McGraw-Hill
Del Monte Research Park
Monterey, California 93940

REFERENCES

American Institutes for Research. Planning Career Goals examiner's manual. Monterey, California: CTB/McGraw-Hill, 1975, 1976.

American Institutes for Research. Planning Career Goals technical bulletin No. 1. Monterey, California: CTB/McGraw-Hill, 1977.

Flanagan, J. C. A program for career and life planning. Education, 1977, 97, 318-325.

Flanagan, J. C. Planning career goals based on data from Project TALENT. The Vocational Guidance Quarterly, 1977, 25, 270-273.

PROFILE OF OCCUPATIONAL INTERESTS (POI)

AUTHORS

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Project Options
Department of Education
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Dartmouth College
Hanover, New Hampshire 03755

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude scale, survey questionnaire

MEASUREMENT VARIABLES

Career awareness, sex role perception

TARGET POPULATION

The instrument is designed to be used with high school students in a rural setting.

INSTRUMENT FORMAT

The instrument consists of 63 questions in a varied format: structured (limited response), unstructured (open-ended), and multiple choice. The questions are concerned with opportunities, choices, crises, and possibilities that women and men are likely to face in their lives. There are two forms of the questionnaire--one for males and one for females.

ADMINISTRATION

The questionnaire is designed for group administration. It is self-explanatory and requires approximately 20 to 60 minutes for completion, depending on the reading level of the subject.

SCORING

The instrument is designed as a needs assessment tool. The cumulative scores of the group responding to the questionnaire are used to identify areas of weakness requiring attention in curriculum development efforts. The coding scheme used to analyze structured and unstructured responses is provided in Options Project, A User's Manual, 1978 (see references).

DESCRIPTION

Development. The instrument was developed in conjunction with a career development project intended to identify career aspirations of rural high school students. The Profile of Occupational Interests (POI) is a revision of a needs assessment questionnaire, the Survey of Occupational and Career Interests (SOCI), developed in the first year of the project. Many of the items from the SOCI were kept in the revised instrument, others were revised or eliminated, and a number of new items were added. Among the new items, several describe prevalent attitudes toward the role of women in society and are adapted from the Attitudes Towards Women Scale (Spence and Helmreich, 1972). Also, in the transition from SOCI to the POI, the instrument was rewritten to have two forms, one for females and the other for males. The two forms differ only in the wording of a few questions.

Reliability. Intercoder reliability for two trained coders scoring the structured and unstructured questions, assessed over 30 questionnaires, ranges from .6 to 1.0 for different questions. Test-retest reliability of the multiple choice items, based on responses of 53 students answering the instrument twice with a two-week interval between administrations and measured as percentage of agreement on individual items, ranges from 50% to 100%.

Validity. Some evidence of predictive validity is provided by the results of the one study in which the instrument was used. The two forms of the questionnaire were administered to students in 26 schools in five regions of the country. A number of statistically significant sex differences were obtained, among them the finding of a discrepancy between women's openness to jobs in traditionally male areas and men's lack of ability to see themselves in traditionally female areas. The capacity of the instrument to detect significant differences between groups may be considered evidence of predictive validity.

SAMPLE ITEMS

9. One year after you finish or leave high school, where do you expect to be living?

   a. ___at home with my parents, relatives, or guardian
   b. ___in my home town, but not with my family
   c. ___in my home state
   d. ___elsewhere

26. When, if ever, do you plan to get married?

   a. ___before graduation
   b. ___within two years after graduation
   c. ___sometime in the future, but not within two years of graduation
   d. ___I am already married
   e. ___I have been married, but am no longer
   f. ___never

39. What do you see as the main purpose of your school guidance office (check ONE)

   a. ___personal counseling
   b. ___academic program counseling (what courses you should take)
   c. ___class scheduling
   d. ___planning for college
   e. ___planning for work

AVAILABILITY

Information regarding the availability of the instrument may be obtained from the author. The instrument is included in the Project Options final report cited in the references (Dunne et al, 1978[c]), which is available from:

ERIC/CRESS Rural and Small Schools Clearinghouse
Box 3AP
New Mexico State University
Las Cruces, New Mexico 88003

REFERENCES

Dunne, F., Elliott, R., & Bent, J. S. Profile of Occupational Interests Survey: A user's manual. The Options Project. Hanover, New Hampshire: Dartmouth College, Department of Education, 1978(a).

Dunne, F., Elliott, R., Bent, J. S., & McGivern, J. Attitudes of rural high school students: Perceptions of work, marriage, and school. Options Project. Final Research Report. Hanover, New Hampshire: Dartmouth College, Department of Education, 1978(b).

Duane, F., Elliot, R., Bent, J. S., & McGivern, J. Aspirations and attitudes among rural high school students: A report from the Options Project. Hanover, New Hampshire: Dartmouth College, Department of Education, 1978. (ED 152 454) (c)

STRONG-CAMPBELL INTEREST INVENTORY (SCII)

AUTHORS

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DATE DEVELOPED

1933; revised 1938, 1945, 1946, 1959, 1964, 1965, 1966, 1968, 1969, 1972, 1974.

INSTRUMENT TYPE

Interest inventory

MEASUREMENT VARIABLE

Occupational likes and dislikes

TARGET POPULATION

The instrument is designed for with high school and college students and other adults

INSTRUMENT FORMAT

Materials for the Strong-Campbell Interest Inventory include a reusable 325-item inventory booklet, an answer sheet, and a scoring profile. The inventory consists of the following seven sections: Occupations (131 items), School Subject (36 items), Activities (51 items), Amusements (39 items), Types of People (24 items), Preference Between Two Activities (30 items), and Your Characteristics (14 items). The individual responds to most items by filling in either 'Like,' 'Indifferent,' or 'Dislike' on the answer sheet.

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ADMINISTRATION

The SCII can be given to individuals or groups, in person or by mail. The average adult can complete the inventory in a half-hour, although completion time ranges from 20 to 60 minutes.

SCORING

The SCII is designed for machine-scoring. Stanford University Press will provide a list of commercial scoring agencies that can be used. Other statistical services, such as item-response frequencies, are available.

DESCRIPTION

Development. The SCII is a direct outgrowth of the Strong Vocational Interest Blank (SVIB), which first emerged in 1927 as an empirical interest inventory. Extensive research and revision over the years has continually refined the Basic Interest and Occupational Scales and has led to the recent development of the General Theme Scale (Holland) and the SCII itself, which combines the previously separate men's and women's scales.

The SCII was designed to provide data on a person's likes or dislikes for a wide range of occupations, occupational activities, hobbies, amusements, school subjects, and types of people. This 1974 revision of the Strong Vocational Interest Blank, a merging of the men's and women's test booklets, can be used with 11th and 12th grade and college-level students as well as adults, for both counseling and research uses. The SCII can be used in counseling as an aid in making educational and occupational choices; as a vehicle in discussions between student and counselor, and student and parent; as a selection device for those who make employment decisions; as a guide in helping someone modify a self-development plan; and as an aid in helping people understand their job dissatisfaction. The SCII can be used in research to study the characteristic interests of particular occupations, changes in groups, institutions, and/or individuals, general societal trends, cross-cultural influences, and influences on career development.

Reliability. Test-retest reliabilities of the earlier SVIB Basic Interest Scales ranged from the .50's for 16-year-olds retested after 36 years to the .90's for samples retested within a matter of weeks. Complete data are in the handbook. Reliability of the newer SCII Basic Interest Scale is expected to be higher. Thus far, a 30-day retest study yielded a median coefficient of .88, and a two-week sample .91, indicating substantial short-term stability. Test-retest statistics for the Occupational Scales are as follows: for a two-week sample of high school and college students, the median correlation was .90; for a 30-day sample the median was .88, again indicating substantial short-term reliability.

Validity. Each of the Basic Interest Scales was designed to focus on one content area, and the items demonstrate this focus clearly.

The concurrent validity of the SCII Basic Interest Scales can be shown by comparing scores of people in different occupations to determine whether people are scoring high on scales relevant to their own field and average or lower on unrelated scales. Data from the earlier SVIB Interest Scales (almost identical to the SCII) demonstrate expected patterns. A detailed table in the manual illustrates the differences among occupational samples. For the Occupational Scales, the percent overlaps were computed and averaged 36% (representing a wide range of overlap). This indicates that the scales vary considerably in their validities. Scales with the highest validities (lowest overlaps) are usually those where the occupation is tightly defined and quite distinct from most other occupations. Scales with low validities are usually those where the occupation is not as well defined.

There is considerable agreement between the scores on the Basic Interest Scale earned by students and their eventual occupations. Some scales are less predictive than others, such as the Adventure and Domestic Arts Scales. The less a pattern resembles a typical adolescent pattern, and the more a pattern is consistent across the entire profile, the more predictive it is. Extensive longitudinal studies have been done by Strong and subsequent investigators to determine the predictive validity of the Occupational Scales. The main findings show a substantial relationship between high scores and the eventual occupations entered. The authors state that depending upon how the "hit rate" is calculated, between half and three-quarters of college students enter occupations that are predictable from their earlier scores, assuming that a relatively loose definition of occupation is used.

Additional Information. The 1977 SCII manual is the best source of technical information about scale development, validity, reliability, and usage. The manual includes information on scale construction and norms, scale inconsistencies, scale interpretation, sex differences, and special scales relating to such factors as academic orientation and introversion-extroversion.

SAMPLE ITEMS

L = Like
I = Indifferent
D = Dislike

Part I. Occupations

5. Art teacher
119. Flight attendant

Part II. School subjects

141. Chemistry

Part III. Activities

216. Climbing along the edge of a steep cliff

Part IV. Amusements

256. Being the first to wear the latest fashions

Part VII. Your characteristics

Yes = the statement describes you
No = the statement does not describe you

321. Can write a concise, well-organized report

AVAILABILITY

The instrument is copyrighted and may be purchased from the following sources:

The Psychological Corporation
757 Third Avenue
New York, New York 10017

Consulting Psychologists Press, Inc.
577 College Ave., P.O. Box 11636
Palo Alto, California 94306

REFERENCES

Campbell, D. P. *Manual for the Strong-Campbell Interest Inventory*. Stanford, California: Stanford University Press, 1974.

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SURVEY OF WOMEN'S ATTITUDES ABOUT CAREERS

AUTHOR

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Project Overcoming Personal-Social Barriers to Entry Into Non-Traditional Occupation Preparation Programs
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Florida State University
206 South Woodward
Tallahassee, Florida 32306

DATE DEVELOPED

1978

INSTRUMENT TYPE

Opinion inventory and attitude scale

MEASUREMENT VARIABLES

Career choice and aspiration

TARGET POPULATION

The instrument was designed to be used with women.

INSTRUMENT FORMAT

The Survey of Women's Attitudes about Careers is a 5-point Likert scale containing 200 statements about factors which may keep women from seeking jobs in areas that are usually dominated by men. The instrument also includes a Personal Information Data section with three questions.

ADMINISTRATION

The instrument was designed as a mail-out survey and directions are printed on the survey booklet. Approximate completion time is 30 minutes to one hour.

SCORING

Individual scores are not calculated. Group responses may be analyzed by averaging assigned points for each item.

DESCRIPTION

Development. The Survey of Women's Attitudes About Careers was developed as part of a project designed to assist women in career decisions and to identify and overcome barriers to entry of women in nontraditional occupations. The development of the instrument began with a telephone survey conducted in order to locate women who had considered nontraditional careers but who were presently secretaries, teachers or nurses. Women who agreed to a personal appointment to discuss factors influencing their career decisions were interviewed by project staff to identify deterrents to entry in male-dominated occupations. The combined list of deterrents resulting from these interviews was used to develop items for the survey questionnaire. In addition to items based on deterrents, the questionnaire also includes Rotter's Internal-External Scale (Rotter, 1966) and Thomas' Career Development Responsibility Scale (Thomas, 1974), both of which measure internal-external locus of control.

The Survey has been administered to a validation sample of 65 nurses, 168 secretaries and 167 teachers in Florida. An exploratory factor analysis of responses resulted in the identification of 17 factors (deterrents) influencing women's career choices. The factors are described as (1) conceptions women may hold about their role in a work environment dominated by men; (2) a woman's perception of who she is and what her abilities are; (3) reinforcement of the stereotyped women's role by the family; (4) establishment of priorities with regard to responsibilities and allocation of money within the family; (5) attitude of others at entry and training levels toward women entering nontraditional careers; (6) attitudes of friends; (7) perception of security in traditional jobs; (8) woman's attitudes towards herself as a professional; (9) the myth a woman's place is in the home; (10) influence of significant others who enter traditional careers; (11) obtaining information about nontraditional careers; (12) attitudes about college education; (13) fear of the nontraditional job setting; (14) attitude that in nontraditional jobs men are superior to women; (15) fear of failure in a nontraditional training program or job; (16) myths about women who are successful in nontraditional jobs; (17) lack of financial resources needed for training. The instrument can be used to develop an individual profile of deterrents based on subscale or factor scores.

Reliability. Internal consistency, using coefficient alpha, is estimated at .98.

Validity. Content validity may be inferred from the procedure used in the development of the instrument. The exploratory factor analysis provides some evidence of construct validity based on the internal structure of the instrument.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Undecided
4 = Disagree
5 = Strongly disagree

A. A woman may decide not to enter careers that are usually held by men because:

1. She wasn't told she could 1 2 3 4 5

2. She doesn't want any hassle on the job 1 2 3 4 5

7. She would offend men by being successful ... 1 2 3 4 5

8. She feels that women have to be better (work harder, etc.) than men to be successful in the same job 1 2 3 4 5

I. A woman may not prepare for any career because:

1. A woman's place is in the home 1 2 3 4 5

2. A woman should be a wife and mother first 1 2 3 4 5

6. A woman doesn't have the energy to deal with a career and housework too 1 2 3 4 5

O. Women may have difficulty getting jobs usually held by men because:

1. Women can't pick up and move to a job as easily as men 1 2 3 4 5

3. They don't plan for a lifetime career 1 2 3 4 5

5. They don't have the social connections to assure their getting the job 1 2 3 4 5

AVAILABILITY

Interested educators and researchers may contact the author to discuss use of the instrument, which is available only in limited quantities. The author would like copies of studies using the instrument.

REFERENCES

Thomas, H. B. Overcoming personal-social barriers to entry into nontraditional occupational preparation programs. Second Quarterly Report (U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Occupational and Adult Education, Project Number 498AH70216, Grant Number G007702136). Tallahassee: Florida State University, College of Education; Vocational Education.

Thomas, H. B. Identification of personal-social barriers to entry into nontraditional occupational preparation programs. Interim report. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Occupational and Adult Education. (Project No. 489AH70216, Grant No. G007702136) (in press)

A SURVEY ON PLANNING YOUR FUTURE (PYF)

AUTHORS

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Andres Block
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Hanover, New Hampshire 03755

DATE DEVELOPED

1978

INSTRUMENT TYPE

Opinion inventory, attitude scale, and factual questionnaire

MEASUREMENT VARIABLES

Sex role perception, extent of career planning, knowledge about the world of work

TARGET POPULATION

The instrument was designed for use with rural high school students of both sexes.

INSTRUMENT FORMAT

The Survey on Planning Your Future (PYF) contains 51 items in varied format: multiple choice, open-ended questions, forced choice, Likert-type scale, and checklists. There is a male and female form of the survey, which differ only in the wording of a few questions.

ADMINISTRATION

The survey is designed for group administration. Directions are printed on the form. Approximate administration time is one hour.

SCORING

Individual total scores are not calculated. Instead, pre- and post change scores are tallied for the nine summary scores: Information (on sex stereotyping); Business (knowledge about); Plans (skill in making plans and in career planning); Attitude (toward working women); Opinion (about sex roles); Jobs (three subscales); and Duties (sex appropriateness in household). Response coding and scoring instructions are provided. Coding of unstructured responses requires training.

DESCRIPTION

Development. The Survey on Planning Your Future (PYF) was developed to be used in pre-post assessment of attitudinal and informational changes related to career interests and plans of non-college bound rural high school students. Additionally, many PYF items were designed to tap intended outcomes of curriculum units. In its initial use, the PYF was administered to 1,056 students in rural schools at ten sites across the United States as the evaluation instrument for a high school curriculum program, Options: A Career Development Program for Rural High School Students. Scores from 641 tenth- through twelfth-grade students were included in an analysis of program impact. The instrument is still under development at the time of this writing. It is anticipated that some items will be eliminated as item analyses and reliability studies are conducted.

Reliability. Interjudge reliability, measured as percent agreement between two raters on six individual PYF items on 33 questionnaires, is reported as greater than 75% on all items but one.

Validity. Some evidence of predictive validity is provided by the results of the one study in which the instrument has been used, in which it detected significant differences between groups. Both PYF pre-test scores and pre-post change scores were subjected to statistical analysis using analysis of variance. These analyses revealed a number of items in which groups differed at the outset as well as differences resulting from assignment to experimental (Options curriculum) or control (traditional curriculum) groups.

SAMPLE ITEMS

7. The life role most appropriate for women is: (Check ONE)

   a. ___ A full-time working single woman without children.
   b. ___ A part-time working single women without children.
   c. ___ A full-time working single woman with children.
   d. ___ A part-time working single woman with children.
   e. ___ A married homemaker without children.
   f. ___ A married homemaker with children.

13. State difficulties you feel result from the stereotyping of male and female roles and behaviors:

   ____
   ____
   ____

21. List three local sources of information about job training or vocational education opportunities.

   (1) ____
   (2) ____
   (3) ____

35. It is ridiculous for a woman to be a construction worker and for a man to be a secretary.

a. ___ strongly agree
b. ___ mildly agree
c. ___ mildly disagree
d. ___ strongly disagree

50. The following is the same list of jobs. This time please check the jobs you think are not suitable for men.

(1) ___ accountant
(2) ___ factory worker
(21) ___ postal worker

AVAILABILITY

Sample forms of the survey are available from the authors at duplicating cost plus postage. The authors would like to receive copies of studies using the instrument.

REFERENCES

Dunne, F., Elliott, R., Block, A., & Bent, J. S. Curriculum Evaluation Report: Pre-Post Test Results. The Options Project. Hanover, New Hampshire: Dartmouth College, Department of Education, 1978.

VOCATIONAL DECISION SCALE (VDS)

AUTHOR

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Raleigh, North Carolina 27650

DATE DEVELOPED

1976

INSTRUMENT TYPE

Survey questionnaire

MEASUREMENT VARIABLES

Career choice, career indecision

TARGET POPULATION

The instrument is designed for use with high school and college students and other adults.

INSTRUMENT FORMAT

The VDS is divided into two sections: Section I assesses levels of vocational decidedness; Section II assesses the reasons for vocational indecision. Section I, a global measure of vocational decidedness, consists of three items in varying formats (completion, multiple choice, and essay). The three items measure career choice, level of decisiveness, and feelings about decision making. Section II, an assessment of why an individual or group of persons is undecided, contains 40 items. Items in this latter section are grouped into the following *a priori* diagnostic categories: self, lack of information about environment, conflict within self, conflict with significant others, need for skills, and indecisiveness.

ADMINISTRATION

The instrument is designed for individual and group administration and requires 30 minutes for completion. It is self-administering with directions for completion printed on the form.

SCORING

The instrument is not designed to provide individual scores. Results yield a general picture of the career decision making process. Scoring guidelines are available.

DESCRIPTION

Development. The VDS was developed to meet a widespread need for career guidance. In the development of the instrument, the critical incident technique (Flanagan, 1949) was used to make a study of the reasons students offer for being undecided about careers, based on the collection of in-counseling incidents counselors experience in career counseling. Items were written to reflect the critical incidents as well as to reflect additional ideas taken from a review of the literature. In its current form, the VDS consists of two sections, Section I which assesses degree of vocational decidedness and the person's feeling of comfort in making a decision, and Section II, which presents 40 different reasons for being vocationally undecided. There have been two major administrations of the VDS which have provided data for statistical evaluation of the instrument, a first administration to 128 males and 151 females and a second administration to 152 males and 72 females. Subjects have been college students. Data on reliability and validity are reported, and additional analyses, including factor analysis, are planned. It is anticipated that the VDS will be used (1) to assist in the planning of programs to meet specific student needs; (2) to serve as a criterion for evaluation of career development programs; (3) to help counselors tailor treatment to individual needs; and (4) to develop a clearer understanding of the nature of vocational decidedness and its antecedents.

Reliability. Test-retest reliability after a two-week interval is reported as .61 and .74 and .58 for the three items in Section I and as ranging from .36 to .65 with a mean of .54 for the 40 items comprising Section II. The test-retest reliabilities of the *a priori* diagnostic subscales into which Section II is divided range from .75 to .79. Reliability of the total score for Section II is reported as .87. Additional studies of reliability were being conducted at the time of this writing.

Validity. Evidence of concurrent validity is provided by the significant correlations of items in Section I measuring vocational decidedness with measures of identity, anomie, career salience, and stage of vocational development. As of this writing, additional validity studies were being conducted.

SAMPLE ITEMS

Section I

After carefully reading each description, select the one statement which you feel best fits you.

1. I am completely undecided about an occupation; I have no idea what I want to do.

3. I am undecided about a particular occupation, but I have narrowed my choices to jobs within one occupational field.

Section II

This section has statements people make when talking about making an occupational choice. Read each statement and then blacken in the appropriate circle on your answer sheet to indicate the extent to which you agree or disagree that it describes you.

1. Knowing how my interests compare with the interests of persons in various occupations would help me with my vocational choice.

5. I need information about educational programs I might want to enter.

10. I am being pressured by people important to me to get more education so that I can get a better job.

AVAILABILITY

The instrument, which is copyrighted, is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

VOCATIONAL INTEREST, EXPERIENCE, AND SKILL ASSESSMENT (VIESA)

AUTHOR

Staff of the American College
Testing Program (ACT)
Dale Prediger, Project Director
2201 N. Dodge Street
P.O. Box 168
Iowa City, Iowa 52240

DATE DEVELOPED

1976

INSTRUMENT TYPE

Interest, experience, and skills inventory

MEASUREMENT VARIABLES

Career-related skills, interests, and experiences

TARGET POPULATION

The instrument is designed for use by students in grades 8 through 12.

INSTRUMENT FORMAT

The Vocational Interest, Experience and Skill Assessment (VIESA) includes the following components: (1) a 60-item version of the Unisex Edition of the ACT Interest Inventory (UNIACT), which summarizes the student's work-related activity preferences according to general orientation to data, ideas, people, or things, with possible responses of 'like,' 'dislike,' or '?'; (2) the Career-Related Experience Inventory, a 60-item checklist designed to assess the student's everyday experiences in terms of data, ideas, people, or things; (3) a brief self-rating of skills organized into the same 4-pronged structure as described above; and (4) a job preference question asking students to name their first job preference and to identify its job family.

These four inventories as well as career exploration aids are included in two student documents, a Career Log and a Career Guidebook.

ADMINISTRATION

VIESA can be used individually in counseling or with groups as part of a developmental career guidance program. If it is used with groups, an experienced administrator can work with groups of 30 to 35 at grades 11 and 12, or with 15 at grades 8 and 9. Most students can complete the key parts of VIESA in a 40 to 45 minute class period. The experience inventory requires additional time. However, a three-session administration model is recommended to ease assimilation of results by students. Detailed administration procedures are outlined in the User's Handbook cited in the references.

SCORING

VIESA is scored by students during completion of the inventory. Directions are available in the student materials.

DESCRIPTION

Development. Realizing that traditionally narrow views of guidance testing were inadequate for more current theories of career development, the designers of VIESA focused on the following concepts: (1) testing should be only one part of a school's career guidance program; (2) the major role of guidance tests is to stimulate self and career exploration; (3) reports of test results must enable counselors and students to interpret test scores meaningfully; and (4) students must be helped to transform test information into personally relevant experience. VIESA components were developed over a period of years (1972-1976) through an extensive series of studies. An overview of these studies is presented in the User's Handbook.

VIESA is a self-scored inventory of career-related skills, interests, and experiences, intended for use by teachers, counselors, or supervised para-professionals. It is designed to stimulate self/career exploration by students and is intended to serve as a teaching module as well as an assessment instrument. In completing VIESA, students learn a simple but complete structure for organizing information about themselves and the world of work, defined in six job clusters and 25 job families. VIESA's goals are closely related to the goals of the Career Planning Program (CPP), also developed by ACT, and can be used in conjunction with the CPP depending on local needs and resources. Both programs use sex-balanced reporting procedures that suggest similar career options to males and females.

Reliability. For UNIACT, the coefficient alpha reliability estimates for six scales assessing Holland types ranged from .85 to .92 with a median value of .87. Split-half reliability estimates for the two bipolar interest scales (Data/Ideas and Things/People) were .75 and .82 respectively, indicating adequate reliability.

For the Career-Related Experience Inventory, reliability data from the Career Planning Program are used because of the close similarity between the two instruments. (Three scales are identical; one differs in only three of 15 items.) Coefficient alpha reliabilities for the four scales for an 11th grade norm group are as follows: Data (.74), Ideas (.82), People (.82), Things (.89). Reliability estimates for a similar sample of 8th graders ranged from .76 to .85.

Test-retest stability coefficients for about a six-week interval range from .79 to .87 (median of .82) for 1,589 college-bound students (Prediger & Johnson, in press). Stability of the Career-Related Experience Inventory is indicated by test-retest (after nine weeks) coefficients, which ranged from .70 to .86 for 445 9th graders and from .72 to .87 for 340 11th graders. (For all practical and statistical purposes, VIESA and CPP experience scales are identical.)

Validity. The User's Handbook presents data and discusses in detail the relationship between the theoretical bases of VIESA (Roe/Holland types, and Data/Ideas and People/Things Work Dimensions) and UNIACT results. For example, data support the expectation that the Data/ Ideas scale would correlate positively with business detail and contact interests, and negatively with science and creative arts interests. Principal component factor analysis revealed factors corresponding closely to the theoretical factors upon which the test was based. Correlations between UNIACT bipolar scales and the corresponding theoretical factors are .84 and .83 and for the Data/Ideas and Things/People scales, respectively, indicating that the two scales provide adequate measures of the theoretical dimensions. Results of two recent criterion-related validity studies involving UNIACT scores of 1,589 college-bound students and 1,962 college seniors show criterion group "hit rates" comparable to those obtained with traditional, sex-restrictive interest inventories (Lamb & Prediger, in press).

Correlations between the six pairs of similar scales on UNIACT and the ACT Interest Inventory (ACT-IV) ranged from .76 to .86, with a median of .80. In recent studies of college-bound students and college seniors, the median UNIACT and ACT-IV correlations were .91 and .87 respectively (Prediger & Johnson, in press). Especially since the sex-balance of item content is much greater in UNIACT, these correlations are considered to be high. Intercorrelations for the Career-Related Experience Scales and the grade 8-12 edition of the CPP interest scales measuring similar dimensions show satisfactory validity. In a 10% national sample, nearly half the correlations between parallel experience and interest scales were greater than .50.

Norms. VIESA norms are based on a carefully chosen subgroup of a nationally representative sample of some 32,000 students in 200 schools selected according to geographic region, socioeconomic status and size of community, and school size. The target population was all full-time students in grades 9-11 enrolled in public or parochial schools in the spring of 1973.

Additional Information. The User's Handbook cited in the references reports results of several studies comparing the criterion-related validity of normed (same-sex norms) and raw scores, and three comparisons of the construct validity of sex-restrictive and sex-balanced interest scores. The Handbook also provides a summary of the samples used in item tryouts, as well as means, standard deviations, and scale intercorrelations for UNIACT. A more complete account of UNIACT characteristics, including interest profiles for 152 educational and vocational criterion groups (n = 26,656), is provided in an ACT research report (Hanson, Prediger & Schussel 1977).

SAMPLE ITEMS

Check List of Work-Related Activities

Mark XX if you have done the activity several times.
Mark X if you have done the activity only once or twice.
Mark 0 if you haven't done the activity OR if the time you spent on it is not worth mentioning.

PEOPLE Activities

_____ Took care of sick or elderly people.

IDEAS Activities

_____ Prepared a project for a science fair.

Career Interests (UNIACT)

Show how much you would like doing the activities listed below:

D = Dislike   ? = Indifferent   L = Like

Build a picture frame
Counsel people using drugs
Set up a bookkeeping system
Work in a science lab

AVAILABILITY

The instrument and accompanying Handbook, which are copyrighted, may be purchased from one of the following Houghton-Mifflin Regional Sales Offices:

666 Miami Circle, N.E., Atlanta, Georgia 30324
6626 Oakbrook Blvd., Dallas, Texas 75235
1900 So. Batavia Ave., Geneva, Illinois 60134
Pennington-Hopewell Rd., Hopewell, New Jersey 08525
777 California Ave., Palo Alto, California 94304

REFERENCES

American College Testing Program. User's Handbook. Vocational interest, experience, and skill assessment. Boston: Houghton-Mifflin Co., 1976.

ACT Research and Development Division. On the popularity of sex-restrictive interest inventories (Or, how to stop worrying and love the boom) (ACT Informal Research Report). Iowa City, Iowa: American College Testing Program, January 1979.

Hanson, G. R., Prediger, D. J., & Schussel, R. H. Development and validation of sex-balanced interest inventory scales. (ACT Research Report No. 78.) Iowa City, Iowa: American College Testing Program, 1977.

Lamb, R. R., & Prediger, D. J. Criterion-related validity of sex-restrictive and unisex interest scales: A comparison. Journal of Vocational Behavior, in press.

Prediger, D. J. Cross-check of VIESA completion rates and scoring accuracy for 8th graders (ACT Informal Research Report). Iowa City, Iowa: American College Testing Program, March 1977.

Prediger, D. J., & Hanson, G. R. Must interest inventories provide males and females with divergent vocational guidance? Measurement and Evaluation in Guidance, 1978, 11, 88-98.

Prediger, D. J., & Johnson, R. W. Alternatives to sex-restrictive vocational interest assessment (ACT Research Report No. 79). Iowa City, Iowa: American College Testing Program, in press.

Prediger, D. J., & Noeth, R. J. Effectiveness of a brief counseling intervention in stimulating vocational exploration. Journal of Vocational Behavior, in press.

WOMEN IN SCIENCE QUESTIONNAIRE

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DATE DEVELOPED

1977

INSTRUMENT TYPE

Survey questionnaire and attitude scale

MEASUREMENT VARIABLES

Career awareness and motivation

TARGET POPULATION

The instrument was designed for use with post-secondary women students, especially those in science-related fields.

INSTRUMENT FORMAT

The questionnaire has a total of 49 items. The first eight items are multiple choice and open-ended questions related to career choice. Item 9 presents a story to be completed by the subject and a question about the story. The last part of the questionnaire consists of a Likert-type scale made up of 40 statements.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 45 minutes to one hour for completion. It is designed for self-administration, and directions for the respondent are given within each section.

SCORING

Scoring instructions are not provided, and individual scores are not computed. Results may be analyzed in terms of (1) the types of career barriers perceived by women in science-related fields, and (2) the types of career barriers these women have actually encountered.

DESCRIPTION

Development. The items on this questionnaire were developed by the authors through analysis of relevant content areas. The attitude scale was based on hypothesized barriers which could prevent women from entering science careers. Preliminary results of administering the questionnaire to college women have indicated that women in science careers have fewer role conflicts than other women. At the time of this writing, the instrument was undergoing revision.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

A = Strongly agree
B = Mildly agree
C = No information
D = Mildly disagree
E = Strongly disagree

3. Women feel a long-term commitment to a science career involves a commitment that interferes with raising a family.

8. Women do not have a natural bent for solving problems and therefore do not have a natural ability to be scientists.

32. I feel that I will not be as informed as a man of job openings.

AVAILABILITY

The instrument is available at duplicating cost plus postage from the authors. The instrument is also included in the appendix to the report by Smith, et al (1975) cited in the references. The authors would like copies of studies using the instrument.

REFERENCES

Smith, W. S. *Science education in the affective domain: The effects of self awareness treatment on career choice of talented high school women*. Paper presented at the National Convention of the National Association in Research in Science Teaching, San Francisco, 1976. (ED 128 168)

Smith, W. S., Stroup, K. M., & Coffman, B. M. *Career Exploration Project for High School Senior Women: Final report*, 1975. (Available from Emily Taylor, Women's Resource and Career Center, 220 Strong Hall, Lawrence, Kansas, 66045.)

WOMEN IN VETERINARY CAREERS QUESTIONNAIRE

AUTHORS

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College of Veterinary Medicine
University of Minnesota

Charlene V. Follett
Student Counseling Bureau
University of Minnesota

Darvin D. Hendel
Measurement Services Center
University of Minnesota

DATE DEVELOPED

1976

INSTRUMENT TYPE

Opinion survey and attitude scale

MEASUREMENT VARIABLES

Career choice and motivation; sex role perception

TARGET POPULATION

The instrument was designed for use with veterinary medicine students of both sexes.

INSTRUMENT FORMAT

The instrument contains six sections in Likert, forced-choice and open-ended format.

ADMINISTRATION

The questionnaire is designed for group administration and may also be administered by mail. Instructions are printed on the instrument. Approximate time for completion is 30 minutes.

SCORING

The instrument is designed to provide group data for analysis, not to yield individual scores. Scoring instructions are not provided. However, responses are to be coded for all forced choice items, and mean group scores can be calculated for each item. The responses on the open-ended questions may be categorized and analyzed according to content.

DESCRIPTION

Development. The instrument was developed to investigate the factors influencing men and women in the selection of veterinary medicine as a career and to compare male and female students on their experiences in college and on their expectations as professionals. The instrument was constructed on the basis of a review of the literature and experiences with students. A draft version of the instrument was reviewed by several male and female veterinary college students, and changes were made to incorporate their comments and suggestions. The instrument has been administered to a sample of 185 male and 54 female veterinary school students. Chi square and one way analysis of variance were used to compare subgroups (e.g., men and women) of student responses to all of the forced-choice questions.

Validity. Some evidence of the validity of the instrument is provided by the findings of the one study in which it was used, in which it detected significant differences between male and female respondents. The results of this study indicated (1) that women veterinary students had received more discouragement than men veterinary students from male and female high school counselors and teachers and from male college counselors; (2) that women were more nontraditional than men in their attitudes toward personal and professional roles; and (3) that students felt all support services should increase but that women need more career counseling than men.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly disagree

Laboratory dress requirements are less reasonable for women than for men.

Women and men are given equal responsibilities in the clinics.

Too much competition makes a woman unfeminine.

If a woman has children, her career should be interrupted while raising them.

AVAILABILITY

The questionnaire may be obtained from the Measurement Services Center, University of Minnesota, 9 Clarence Avenue Southeast, Minneapolis, Minnesota 55414. The authors would like copies of studies using the instrument.

REFERENCES

Andberg, W. L., *et al*. *Career influences, educational experiences, and professional attitudes of women in veterinary medicine*. (ED 151 633)

ATHLETIC-PHYSICAL EDUCATION CLIMATE ASSESSMENT INSTRUMENT (APECAI)

AUTHORS

Milton G. Holmen
Department of Management and Public Administration

Bonnie L. Parkhouse
Department of Physical Education
University of Southern California
University Park
Los Angeles, California 90007

DATE DEVELOPED

1978

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Institutional sexism, sex role perception

TARGET POPULATION

The instrument was designed for use with college physical education instructors and coaches.

INSTRUMENT FORMAT

This semantic differential type instrument in Likert format consists of 80 adjectives and descriptive phrases. The subject indicates the degree to which each of these describe: (1) physical education department members of the respondent's own sex; (2) department members of the opposite sex; and (3) the way the respondent thinks the opposite sex would describe the respondent's sex.

ADMINISTRATION

The instrument is to be administered three times to each subject. Directions are printed on the form. Group administration is appropriate, and the approximate completion time is 30 minutes for each administration.

SCORING

Individual scores are not calculated. Rather, mean scores for each adjective or descriptive phrase are computed for each group. A score of 7 indicates that the description fits perfectly, and a score of 1 indicates that the description is completely incorrect. A format for displaying mean scores and a method for interpreting these scores is suggested in the article by Parkhouse & Holmen (1978) cited in the references.

DESCRIPTION

Development. The Athletic-Physical Education Climate Assessment Instrument (APECAI) was developed as part of an action research project intended to study the merging process in male and female athletic departments. In order to develop the instrument, coaches and instructors of nine university athletic departments were asked to participate in an Organization Mirrors Exercise. Participants were divided into groups by sex and were asked to write single words and brief phrases describing the way they see themselves as department members, the way they see members of the opposite sex, and the way they imagine the opposite sex sees them. The responses of this group of 107 men and 89 women were the basis for the development of the APECAI. The instrument has been used in one study in which it was administered twice, with a five-day interval, to 21 male and 23 female coaches to gather data about its psychometric characteristics. It is recommended that the APECAI be used to highlight areas of agreement as well as areas of misunderstanding between male and female athletic instructors.

Reliability. Test-retest reliability of mean scores for each item, with a five-day interval, range from .97 to .99.

Validity. Some evidence of concurrent validity is provided by the results of the one study using the instrument. Intercorrelations of the responses of male and female athletic instructors, based on instructions to respond as they see themselves, as they see the opposite sex, as they imagine the opposite sex sees them, yielded positive low to moderate correlations between response patterns.

SAMPLE ITEMS

Listed below are adjectives and short phrases which can be used to describe coaches and/or physical education teachers. On this sheet you will indicate the extent to which each item below describes ______________________ at your school.

Honest	1 2 3 4 5 6 7
Impatient for change	1 2 3 4 5 6 7
Inconsistent	1 2 3 4 5 6 7
Indifferent to others needs	1 2 3 4 5 6 7
Influential	1 2 3 4 5 6 7
Selfish	1 2 3 4 5 6 7
Stingy	1 2 3 4 5 6 7

Superiority complex 1 2 3 4 5 6 7
Threatening 1 2 3 4 5 6 7
Unimaginative 1 2 3 4 5 6 7

AVAILABILITY

The instrument is available from either author at duplicating cost plus postage.

REFERENCES

Parkhouse, B. L., & Holmen, M. G. Action research paradigm to facilitate merging male and female athletic or physical education departments. Research Quarterly, 1978.

CHECKING YOUR BALANCE: GUIDELINES FOR ASSESSING SEXISM IN SCHOOL AND CLASSROOM PRACTICES

AUTHORS

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New Jersey State Department of Education
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P.O. Box 2019
Trenton, New Jersey 08625

DATE DEVELOPED

1976

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLES

Success of affirmative action plan, institutional sexism

TARGET POPULATION

The instrument is designed to be used by teachers, administrators, and other school district personnel.

Institutional Sexism

INSTRUMENT FORMAT

The guidelines are contained in a 16-page booklet. They are grouped into seven areas: School Practices Which Deal with Sex Stereotyping; Textbook and Materials Evaluation; Counseling Opportunities; Pregnancy or Related Conditions; In-Service Training; Physical Education; and Equal Opportunity for Both Sexes in Team Sports. Each heading is followed by several specific questions, 125 in all, relating to school practices. Space is provided to the right of the questions for responding either 'yes' or 'no' and for making comments or suggestions.

ADMINISTRATION

The guidelines can be used by administrators, teachers, or other interested school personnel to assess their school's practices in relation to sex stereotyping and discrimination. Administration directions are suggested in the guidelines. The guidelines can be used by individuals or administered to groups as a staff development activity.

SCORING

After responding to the questions and tallying the number of 'yes' responses, districts can check their balance against a guide at the end of the booklet, which indicates points according to the number of 'yes' responses. The scores generally indicate whether the district is engaged in unequal educational practices.

DESCRIPTION

Development. The guidelines were developed by staff in the New Jersey Office of Equal Educational Opportunity and were based on the staff's experiences and on other published guidelines. As the guidelines were developed, they were reviewed informally in the EEO office.

The guidelines were developed specifically to assist New Jersey school districts in assessing their affirmative action programs for ensuring equal educational opportunities for males and females. Each district is required to write a viable affirmative action plan. The guidelines were written with the state's EEO regulations (Title 6) and with the federal regulations (Title IX) in mind. (The state Title 6 regulations are included with a copy of the guidelines.) The introduction to the guidelines states that the checklists should be helpful at all stages of a district's assessment and that they should stimulate thinking and elicit other questions from school decision-makers about the degree to which a district really does provide equal educational opportunities for all its students. Some questions probe into such subtle forms of discrimination as placement of books in the library. The guidelines have been distributed to districts in New Jersey upon request.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

GUIDELINE I: SCHOOL PRACTICES WHICH DEAL WITH SEX STEREOTYPING

2) Classroom and Small Group Assignments	Yes	No	Comments/Suggestions
a. Are males and females grouped together, as in			
1. partner assignments			
2. classroom teams			
3. study groups			
4. other (specify)			

GUIDELINE II: TEXTBOOK AND MATERIALS EVALUATION

3) Bulletin Board Displays	Yes	No	Comments/Suggestions
a. Do displays show males and females in nontraditional as well as traditional roles?			
b. Do both male and female students design room and school displays?			
c. Are the contributions of women included in the room and school displays?			
d. Do both males and females design and hang school displays?			

GUIDELINE III: COUNSELING OPPORTUNITIES

4) Dissemination of Information Regarding Vocational and Educational Opportunities	Yes	No	Comments/Suggestions
a. Do males and females see information on all vocations and educational opportunities?			

b. Do guidance counselors suggest course offerings and career opportunities regardless of the student's sex?	___	___	________________
c. Do they actively inform students about the variety of traditional and nontraditional career opportunities available to them?	___	___	________________

GUIDELINE IV: PHYSICAL EDUCATION

1) Makeup of Class Enrollment and Participation in Activities	Yes	No	Comments/Suggestions
a. Do males and females have the opportunity to participate in activities previously thought of as sex-stereotyped? (Example: males in dance, females in soccer)	___	___	________________
b. Do girls have the opportunity to participate on boys' teams when they meet the qualifications necessary to play?	___	___	________________

GUIDELINE VII: EQUAL OPPORTUNITY FOR BOTH SEXES IN TEAM SPORTS

2) Budget, coaching salaries, purchase and maintenance of equipment, quality of equipment	Yes	No	Comments/Suggestions
a. Is there equitable spending regarding these items listed above? (Example: Are male and female coaches paid equally for equal work done?)	___	___	________________

AVAILABILITY

Copies of the guidelines are available from:

Office of Equal Educational Opportunity
New Jersey State Department of Education
225 West State Street
P.O. Box 2019
Trenton, New Jersey 08625

Single free copies are available. The authors would like copies of studies using the instrument.

CHECKLISTS ON STAFFING, ANALYZING A SCHOOL LIBRARY, AND ANALYZING AN ELEMENTARY READER

AUTHOR

Education Committee of
Pennsylvanians for Women's Rights

DATE DEVELOPED

1975

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Institutional sexism

TARGET POPULATION

The checklists are designed for teachers and administrators at the elementary school level.

INSTRUMENT FORMAT

The three checklists contain yes/no items for which the evaluator checks the most fitting response.

The Checklist on Staffing contains a total of 19 items in five classifications. The classifications and numbers of items in each are shown below:

Classification	Number of Items
General	3
Hiring Practices	7
Assignment	2
Promotion	5
Retirement and Retrenchment	2

The Checklist for Analyzing a School Library contains 10 items. The Checklist for Analyzing an Elementary Reader contains 20 items.

ADMINISTRATION

Suggested administration directions are included with the checklists, along with additional information in the guide cited in the references. Completion time varies depending upon the extent of knowledge of the respondent and the level of detail desired. The range of time needed to complete any one checklist is from 10 minutes to one hour.

SCORING

Suggested scoring instructions are included with the instrument. The checklists yield a general description of the degree of sex stereotyping in staffing patterns and salaries, in library practices and policies, and in reading materials.

DESCRIPTION

Development. Developed in 1974 by the Education Committee of Pennsylvanians for Women's Rights, these checklists are part of a self study guide which also contains additional evaluation criteria for assessing sexism in schools. The Pennsylvania Department of Education has used the guide in its efforts to achieve equal educational opportunity for girls and women. Each section of the guide contains a definition of an educational area (such as curriculum or staffing) and a discussion of the impact of sexism in that area; suggestions on how to organize and evaluate that aspect of school life; and a list of additional resource materals. The purpose of the checklists is to focus attention on areas in need of change in a school district, college, or university. The checklists can be helpful in collecting and organizing data from groups of schools or districts.

Validity. Content validity was established during a conference held at AIR by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

Checklist for Analyzing an Elementary Reader

Yes No

___ ___ 3. Women working outside of the home hold administrative and/or technical jobs. They are not all teachers, librarians, social workers, nurses, or secretaries.

___ ___ 18. Clothing and appearance are not used to stereotype characters.

Checklist for Analyzing a School Library

___ ___ 5. Library displays include feminist subjects.

___ ___ 9. Materials on career choices offer a wide variety of options for both girls and boys. They do not suggest that certain careers are for girls and others for boys.

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Checklist on Staffing

___ ___ 3. Women and men with comparable experience and qualifications are hired at the same level.

___ ___ 1. Individuals of one sex are not clustered in certain job classifications, departments, grades or divisions.

___ ___ 4. On the whole, women are promoted as frequently as men at all levels.

AVAILABILITY

The checklists are included in the guide cited below and may be reproduced from that publication. The guide is available from:

Pennsylvania Department of Education
Box 911
Harrisburg, Pennsylvania 17126

REFERENCES

Pennsylvanians for Women's Rights. Self study guide to sexism in schools. Harrisburg: Pennsylvania State Department of Education, 1974.

COMPLYING WITH TITLE IX: IMPLEMENTING INSTITUTIONAL SELF-EVALUATION

AUTHORS

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Resource Center on Sex Equity
400 North Capitol, N.W.
Washington, D.C. 20001

DATE DEVELOPED

1976

INSTRUMENT TYPE

Evaluation guideline

MEASUREMENT VARIABLE

Institutional sexism

TARGET POPULATIONS

The instrument is designed to be used by local education agencies and educators in K-12 and postsecondary schools.

INSTRUMENT FORMAT

The checklists are part of a lengthy handbook for implementing institutional self-evaluation, which covers the following areas: (1) access to courses--general; (2) access to courses--physical education; (3) counseling; (4) treatment of students including insurance benefits, health services, honors; (5) student marital and parental status; (6) athletics; (7) financial assistance; and (8) employment. The chapter covering each of the above areas contains a citation of the relevant provisions of the regulation, background information on the issue, an outline of review materials, suggested data to collect, and questions to answer in the self-evaluation. It also contains the action checklist that suggests general action steps needed to implement, coordinate, and monitor the evaluation.

Each checklist addresses several levels of educational administration and has sections to be completed with a 'yes' or 'no' response by central office staff, building administrators (principals or supervisors), and instructors or counselors. These checklists provide educational personnel with specific guidelines for the institutional self-evaluation process.

ADMINISTRATION

The checklists and support materials present one possible framework for organizing a self-evaluation under Title IX. Local education agencies must review and adapt the materials according to their own needs, first reviewing them at the central administrative level. After review, the Title IX coordinator may wish to adapt the materials as needed and to delegate responsibility for coordinating the various parts of the evaluation to appropriate staff members. It may be possible in many agencies to reproduce the checklist or other parts of the handbook exactly as they are.

SCORING

The checklists provide a general picture of existing conditions related to sex stereotyping. Numerical or individual scores are not necessary. The checklists provide educational personnel with an administrative tool for ensuring effective Title IX implementation. Each section also includes questions designed to ascertain compliance with the provisions of the Title IX regulation. Any 'no' answer would indicate an area of non-compliance.

Institutional Sexism

DESCRIPTION

Development. These checklists were developed in response to the requirement that every educational institution or agency receiving federal funds complete a self-evaluation of its compliance with Title IX and make available to the federal government this evaluation and related materials. An extensive handbook, of which the checklists are a part, was developed to facilitate such self-evaluation.

The checklists were developed for the Women's Program Staff in USOE to assist local education agencies in conducting an effective institutional self-evaluation to ensure compliance with the requirements of Title IX. The authors prepared five successive drafts of the checklists, which were reviewed by numerous experts in the area of educational equity for women. The checklists suggest general action steps that should be taken in implementing, coordinating, and monitoring an institutional self-evaluation. The Resource Center on Sex Equity and USOE have distributed about 40,000 copies of the booklet containing these checklists, not only to the K-12 personnel for whom they were designed, but also to post-secondary institutions. Another 60,000 copies have been reproduced and disseminated by state and local education agencies. Louisiana, Minnesota, Maryland and Pennsylvania are among the states using at least some of the checklists for gathering compliance data.

Validity. A committee including experts from the Office of Civil Rights reviewed these checklists during their development. Additional content validity was established during a conference held at AIR by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and the educational level of the target population for which it is intended.

SAMPLE ITEMS

ACCESS TO COURSES - GENERAL	• Central Office Staff: Has a policy directive regarding the specific implications of Title IX for student access to all courses been developed and disseminated to administrators and relevant staff? Yes No
ACCESS TO COURSES - PHYSICAL EDUCATION	• Principals/Supervisors: Have you requested that all building staff submit information regarding any instances of sex discrimination that they may identify in practices, policies or materials relating to physical education? Yes No

COUNSELING

- Counselors: Do you encourage all students to make academic, career and personal decisions on the basis of individual abilities, interests, and values rather than on the basis of sex?

  Yes No

THE TREATMENT OF STUDENTS

- Central Office Staff: Have all district policies regarding student dress or appearance been reviewed and modified where necessary to ensure compliance with Title IX?

  Yes No

FINANCIAL ASSISTANCE

- Building Staff: Have you reviewed all forms used by students in applying for financial assistance for which you have responsibility and modified them where necessary to ensure compliance with Title IX?

  Yes No

EMPLOYMENT

- Principals/Supervisors: Have you requested that all building staff submit information concerning any instances of sex discrimination that they may identify in school employment (or employment-related) practices and procedures?

  Yes No

AVAILABILITY

Copies of the instrument may be obtained from:

Resource Center on Sex Equity
400 North Capitol, N.W.
Washington, D.C. 20001

or from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
(Stock No. 017-080-01671-1)

The handbook is published by the U.S. Office of Education and therefore is in the public domain.

REFERENCES

Matthews, M., & McCune, S. Complying with Title IX: Implementing institutional self-evaluation. Washington, D.C.: Resource Center on Sex Equity, 1976.

TITLE IX IMPLEMENTATION ASSESSMENT INSTRUMENT

AUTHOR

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Fullerton, California 92634

DATE DEVELOPED

1975, revised November 1978

INSTRUMENT TYPE

Interview schedule and rating scale

MEASUREMENT VARIABLE

Identification of institutional sexism

TARGET POPULATION

The instrument is designed for use by elementary and secondary school district personnel.

INSTRUMENT FORMAT

This is an interview discussion guide with a continuum of alternative responses (that is, a rating scale) for each question. The interview contains 40 questions grouped in six sections: (1) Preliminary Compliance Requirements; (2) Access to Courses (General); (3) Access to Non-Academic Activities; (4) Physical Education; (5) Athletics; and (6) Employment.

ADMINISTRATION

The interview may be administered to individuals or to small groups. The interviewer is to write out responses during the interview and then mark the scaled responses on the interview form after completing the interview. Estimated minimum time to complete an interview is two hours. The Interviewing and Rating Instructions provide complete directions for administering the interview and for interpreting information on the rating scale.

SCORING

The interview/rating scale was designed to be machine scored using optical scan scoring sheets. However, hand scoring is possible. The rating scales for each question are sequential in that they assume that step A should have been completed before B, etc. Weighted scores are given for each response. A total score and six subscale scores are calculated by adding points assigned for each item.

Institutional Sexism

DESCRIPTION

Development. This instrument was developed for Project Equity, a program designed to train participating school district personnel at the elementary and secondary school level to understand and to implement the requirements of Title IX, thereby eliminating institutional sex bias and stereotyping in the schools. The items are based on research conducted in conjunction with the evaluation of Project Advance at the University of San Francisco. They measure six dimensions of sex bias defined by Title IX of the 1972 Educational Amendments. This systematic approach to item development provides some evidence of content validity.

SAMPLE ITEMS

I. Preliminary Compliance Requirements

1. Has the Board adopted a policy of gender non-discrimination?

   A. No policy has yet been proposed and/or accepted
   B. Policy has been proposed and is presently under consideration.
   C. Policy has been adopted by Board.
   E. Does not apply.

III. Access to Courses (Physical Education)

17. Has the district implemented a co-ed P.E. program for all activities (except actual participation in contact sports) at all grade levels?

   A. District has not yet implemented a co-ed program.
   B. District has implemented a co-ed program for some (at least 50%) of its P.E. activities (excluding actual playing in contact sports).
   C. District has implemented a co-ed P.E. program for 100% of its P.E. activities (excluding actual playing in contact sports) at all grade levels.
   D District has implemented a co-ed P.E. program at all grade levels; furthermore, district frequently conducts on-site observations of P.E. classes (or interviews with P.E. students) to ensure that activities in P.E. classes (except actual playing in contact sports) are actually conducted on a co-ed basis.
   E. Does not apply.

AVAILABILITY

The Assessment Instrument and Interviewing and Rating Instruction manual are available from Project Equity at duplicating cost plus postage. A written request is required.

REFERENCES

McDonald, S. C. Effort to develop a measure of institutional gender bias in California schools: Report of work in progress. Paper delivered at the Third Midwest Conference on Women in Educational Research, sponsored by the American Educational Research Association, University of Wisconsin, Milwaukee, October 1977.

McDonald, S. C. The review of the literature on institutional sex bias. Paper delivered at the Annual meeting of the American Educational Research Association, New York City, 1976.

McCune, S., & Matthews, M. Complying with Title IX: The first twelve months. Resource Center on Sex Roles in Education, National Foundation for the Improvement of Education, Washington, D.C. Contract No. 300-75-0256, Women's Program Staff, U.S. Office of Health, Education and Welfare.

McCune, S., & Matthews, M. Complying with Title IX: Implementing institutional self-evaluation. Washington, D.C.: Resource Center on Equity, 1976.

VOCATIONAL EDUCATION EQUITY STUDY
COUNSELOR/INSTRUCTOR INTERVIEW QUESTIONNAIRE

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Factual questionnaire and opinion inventory interview

MEASUREMENT VARIABLES

Institutional sexism, sex stereotyping in vocational education, progress in implementing sex equity programs

TARGET POPULATIONS

The counselor form is designed for secondary and postsecondary counselors, feeder school counselors, and the director of guidance and counseling for local districts and community colleges. The instructor form is designed for use with secondary and postsecondary vocational instructors.

INSTRUMENT FORMAT

Both instruments are designed to be used as personal interview forms. The counselor form contains 84 items, divided into seven sections. The instructor form contains 80 questions divided into six sections. These sections contain questions aimed at gathering information on the extent and nature of sex stereotyping and sex discrimination in vocational education. The content areas include: (1) attrition of traditional and nontraditional students; (2) perceived competency of male and female students; (3) kinds, status and effects of efforts to reduce inequities in staffing patterns; (4) comparison of past and present practices in regard to sex bias; (5) status of activities to identify and and overcome sex inequities; (6) Title IX activities; (7) steps taken to meet the special needs of minority group students and women reentering the labor market; (8) existence of work study and cooperative education and how placements are determined; (9) counseling activities (not included in the instructor form); and (10) perceived constraints to achieving sex equity. The items are in multiple choice, open-ended question, and rating scale format. Some items include respondent information sheets for visual review of response choice. Each respondent is asked professional and occupational experience and is identified by sex, race, and current position.

ADMINISTRATION

Both instruments are designed for individual administration and each requires approximately one hour for completion. Directions for interviewers are provided throughout the instrument. A replication handbook describing the instrument and its development and use is available (see references).

SCORING

Responses to items are intended to show a level of implementation of specific sex equity activities and efforts rather than to yield an individual score. Frequencies and cross tabulations can be calculated on all multiple choice items. Open-ended items must be coded by users before frequencies can be calculated. Examples of scoring and data analysis procedures are available in the primary data volume cited in the references, which provides the results of the initial study using the instruments.

DESCRIPTION

Development. The instruments were developed for use in a congressionally mandated study to determine the extent and nature of sex stereotyping and sex discrimination in vocational education. The Vocational Education Equity Study conducted by the American Institutes for Research, was designed to respond to Section 523(a) of the Educational Amendments of 1976 (Public Law 94-482). These instruments are two of a set of seven instruments developed and used in the study. A complete review of existing secondary data, literature, and documentation was completed to formulate hypotheses and develop the interview questionnaires. Key question areas were identified as follows: (a) demographic information for state, local, education agency, or community college supervisors, school personnel, and students; (b) status of planning for or implementing sex fairness activities by state, local, and school agencies; (c) status of sex fairness programs and Title IX activities at state, local, and school agencies; (d) documentation of sex fairness activities, programs, and results; (e) current enrollment data of vocational education students within the sample schools; (f) staffing patterns at the state, local, and school levels; and (g) awareness of, and attitudes toward, sex inequities which may result in sex stereotyping in vocational education and the labor force. The instruments were field tested in four states prior to their use in the study.

The counselor form was used with a sample of approximately 50 local directors of guidance and counseling and 400 secondary and community college counselors. The instructor form was used with a sample of approximately 800 vocational instructors representing the seven traditional occupational program areas -- Agriculture, Home Economics, Business and Office, Distributive Education, Health, Trade and Industrial, and Technical. Results of the study are available in Volume I as cited in the references.

Validity. Each instrument developed for the Vocational Education Equity Study passed through a series of review and revision sessions before submission to the Office of Management and Budget (OMB). OMB clearance was obtained on each instrument. The systematic review process was rigorous in nature and is considered by the authors as sufficient evidence of content validity of the instrument.

SAMPLE ITEMS

Counselor Form

1. What is your current position (check main one)

1 _____ Counselor at vocational school
2 _____ Counselor at junior/community college
3 _____ Counselor at comprehensive senior high school
4 _____ Counselor at a junior high school
5 _____ Director of counseling

Institutional Sexism

2. On the whole, how well are females in traditionally male vocational courses accepted by other students in those courses?

1 _____ Very poorly
2 _____ Poorly
3 _____ Don't know
4 _____ Moderately well
5 _____ Very well
9 _____ Insufficient experience to judge

Which of the following are being planned or implemented at your school? (Interviewer circles one number preceding the statement.)

1. No plans to do it
2. Will do it; formal planning not yet begun
3. Will do it; formal planning begun
4. Informally implemented on an individual basis
5. Formal implementation has begun
6. Fully implemented, or completed
0. I don't know
9. N/A

1 2 3 4 5 6 0 9 17. Hiring or promotion of women for ADMINISTRATIVE positions usually filled by men.

1 2 3 4 5 6 0 9 18. Hiring or promotion of men for ADMINISTRATIVE positions usually filled by women.

1 2 3 4 5 6 0 9 19. Hiring or promotion of women for TEACHING positions usually filled by men

1 2 3 4 5 6 0 9 20. Hiring or promotion of men for TEACHING positions usually filled by women

1 2 3 4 5 6 0 9 21. Hiring or promotion of women for NONPROFESSIONAL positions usually filled by men

1 2 3 4 5 6 0 9 22. Hiring or promotion of men for NONPROFESSIONAL positions usually filled by women

Instructor Form

The next series of questions relates to the review of policies and materials used by your school to ensure sex equity. Is your school implementing or planning to implement any of the following?

1. No, and it should not/does not need to
2. No, but it should
3. Yes
9. Don't know

1 2 3 9 58. Review student recruitment policies, practices, and materials to assure that they are nondiscriminatory in accord with applicable state and federal law.

1 2 3 9 59. Review student admission policies, practices, and materials to assure that they are nondiscriminatory in accord with applicable state and federal law.

1 2 3 9 60. Invite staff and students to submit information regarding instances of sex bias or discrimination in policies, practices, or materials.

1 2 3 9 61. Review teaching materials or procedures for sex bias and discrimination.

1 2 3 9 62. Conduct school self-evaluations in response to Title IX.

1. What are the primary occupations for which you prepare students? (List no more than three.)

2. How long have you been teaching in this field?

3. How many years did you work in the occupation you teach?

AVAILABILITY

The instruments are contained in the handbook cited in the references. Information on the availability of the handbook and related materials and reports can be obtained from the authors.

REFERENCES

Dahl, P., Harrison, L., & Parks, B. *Replication handbook* (Vol. 4). Palo Alto: American Institutes for Research, March 1979.

Harrison, L., Dahl, P., Shaycoft, M., & Parks, B. *Primary data of the Vocational Education Equity Study* (Vol. 1). Palo Alto: American Institutes for Research, March 1979.

Parks, B., & Harrison, L. A model to assess the extent of sex discrimination and sex stereotyping in vocational education. *Journal of Research and Development in Education*, 1979, *2*(3), 29-33.

VOCATIONAL EDUCATION EQUITY STUDY
INTERVIEW OF LOCAL AGENCY PERSONNEL

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Factual questionnaire and opinion inventory interview

MEASUREMENT VARIABLES

Institutional sexism, sex stereotyping in vocational education, progress in implementing sex equity programs

TARGET POPULATION

The instrument is designed to be used with local education agency personnel in vocational education, primarily the local director of vocational education for secondary and postsecondary levels.

INSTRUMENT FORMAT

The instrument is designed as a personal interview form. It consists of 61 items divided into seven sections. These sections contain questions aimed at gathering information in the following areas to determine the extent of sex discrimination and sex stereotyping in vocational education at the district or school level: (1) kinds, status and effects of efforts to reduce sex inequities in staffing patterns; (2) comparison of past and present practices related to sex bias; (3) status of activities to identify and overcome sex inequities; (4) awareness of sex fairness activities; (5) attrition of traditional and nontraditional students; (6) steps taken to meet the special needs of minority group students and women reentering the labor market; and (7) perceived constraints to achieving sex equity.

The items are in multiple choice, rating scale and open-ended question format and include respondent information sheets for visual review of response choice on some items. Each person interviewed is asked about professional experience and identified by sex, race and position within the local agency.

ADMINISTRATION

The instrument is designed for individual administration and requires approximately one hour for completion. Directions for interviewers are provided throughout the instrument. A replication handbook describing the instrument and its development and use is available (see references).

SCORING

Responses to items are intended to show a level of implementation of specific sex equity activities and efforts rather than to yield an individual score. Frequencies and cross tabulations can be calculated on all multiple choice items. Open-ended items must be coded by users before frequencies can be calculated. Examples of scoring and data analysis procedures are available in the primary data volume which presents the results of the initial study using the instrument (see references).

DESCRIPTION

Development. The instrument was developed for use in a congressionally mandated study to determine the extent and nature of sex stereotyping and sex discrimination in vocational education. The Vocational Education Equity Study conducted by the American Institutes for Research, was designed to respond to Section 523(a) of the Educational Amendments of 1976 (Public Law 94-482). This instrument is one of a set of seven instruments developed and used in the study. A complete review of existing secondary data, literature, and documentation was completed to formulate hypotheses and develop the interview questionnaires. Key question areas were identified as follows: (a) demographic information for state, local, education agency, or community college supervisors, school personnel, and students; (b) status of planning for or implementing sex fairness activities by state, local, and school agencies; (c) status of sex fairness programs and Title IX activities at state, local, and school agencies; (d) documentation of sex fairness activities, programs, and results; (e) current enrollment data of vocational education students within the sample schools; (f) staffing patterns at the state, local, and school levels; and (g) awareness of, and attitudes toward sex inequities which may result in sex stereotyping in vocational education and the labor force. The instruments were field tested in four states and revised prior to their use. In the initial study, this particular form was used with a sample of approximately 100 LEA vocational education directors across the United States. Results of the study are available in Volume 1 as cited in the references.

Validity. Each instrument developed for the Vocational Education Equity Study passed through a series of review and revision sessions before submission to the Office of Management and Budget (OMB). OMB clearance was obtained on each instrument. The systematic review process was rigorous in nature and is considered by the authors as sufficient evidence of content validity of the instrument.

SAMPLE ITEMS

1. Has your local education agency/community college undertaken efforts to reduce sex inequities in staffing patterns at the local agency level?

1 ____ No plans to do anything. Go to Section II, Item 3.
2 ____ Will do something; formal planning not yet begun. Go to Section II, Item 3.
3 ____ Will do something; formal planning begun.
4 ____ Informally implemented on an individual basis.
5 ____ Formal implementation has begun.
6 ____ Fully implemented, or completed.
9 ____ Don't know. Go to Section II, Item 3.
Brief description ______________________

____

____

Who on the staff can give us further information?

2. Has a liaison been created between local Title IX and vocational staff?

1 ____ No, none at all.
2 ____ Don't know.
3 ____ Yes, weak.
4 ____ Yes, very close.

AVAILABILITY

The instrument is contained in the handbook cited in the references. Information on the availability of the handbook and related materials and reports can be obtained from the authors.

REFERENCES

Dahl, P., Harrison, L., & Parks, B. Replication handbook (Vol. 4). Palo Alto: American Institutes for Research, March 1979.

Harrison, L., Dahl, P., Shaycoft, M., & Parks, B. Primary data of the Vocational Education Equity Study (Vol. 1). Palo Alto: American Institutes for Research, March 1979.

Parks, B., & Harrison, L. A model to assess the extent of sex discrimination and sex stereotyping in vocational education. Journal of Research and Development in Education, 1979, 2(3), 29-33.

VOCATIONAL EDUCATION EQUITY STUDY INTERVIEWS OF DIRECTORS AND STATE AGENCY PERSONNEL

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Factual questionnaire and opinion inventory interview

MEASUREMENT VARIABLES

Institutional sexism; sex stereotyping in vocational education, progress in implementing sex equity programs.

TARGET POPULATION

Two separate instruments are included in this description. One is designed to be used with state directors of vocational education and the other with state level vocational education staff, for example, occupational program specialists, research and evaluation specialists, professional development specialists, and vocational guidance specialists.

INSTRUMENT FORMAT

Both instruments are designed as personal interview forms. The state director instrument consists of 23 questions intended to determine the extent and nature of sex stereotyping in all state vocational programs in the following areas: (1) employment status of the staff assigned specific activities; (2) state provisions for planning or implementing sex fairness in relation to developing or sponsoring programs and activities designed to reduce stereotyping; (3) dissemination of information about these programs or activities; (4) gathering, analyzing and disseminating information on the status of women and men students and employers and correcting any sex bias problems identified; (5) reviewing the distribution of grants by the state board to assure the interests and needs of women are addressed; (6) reviewing all programs in the state for sex bias; (7) monitoring the implementation of laws prohibiting sex discrimination in all hiring, firing or promotion procedures within the state; (8) assisting local education agencies and other interested parties in the state in improving opportunities for women; (9) making information available; and (10) documentation and perceived constraints to achieving sex equity in vocational education.

The state agency staff interview is aimed at gathering information on: (1) kinds, status, effects of programs, comparison of past and present practices related to sex bias; (2) status of activities to identify and overcome sex inequities; (3) data collection, dissemination, or monitoring activities; (4) Title IX activities; sex equity activities related to educational amendments of 1976; and (5) perceived constraints to achieving sex equity. In addition to this information, the sex equity coordinator (a mandated vocational education position at the state level) is asked financial expenditures for and priorities of activities related to Section 104(b)1 of the Educational Amendment of 1976, and factors inhibiting achievement of sex equity in vocational education. The executive director of the state vocational education advisory council is asked to provide information on numbers of women and minority members on the council and the background of the women; the status, findings and results of advisory council evaluations, and other activities relating to sex stereotyping; and the status of state advisory council assistance to local advisory councils.

The items for both instruments are in multiple choice, rating scale and open-ended question format and include respondent practice sheets for visual review of response choice. Each person is asked professional experience and identified by sex, race and position within the state agency.

ADMINISTRATION

The instruments are designed for individual administration, and each requires approximately one hour for completion. Directions for interviewers are provided throughout the instruments. A replication handbook describing the instruments and their development and use is available (see references).

SCORING

Responses to items are intended to show a level of implementation of specific sex equity activities and efforts rather than to yield an individual score. Frequencies and cross tabulations can be calculated on all multiple choice items. Open-ended items must be coded by users before frequencies can be calculated. Examples of scoring and data analysis procedures are available in the primary data volume explaining the results of the initial study using the instruments (see references).

DESCRIPTION

Development. The instrument was developed for use in a congressionally mandated study to determine the extent and nature of sex stereotyping and sex discrimination in vocational education. The Vocational Education Equity Study conducted by the American Institutes for Research, was designed to respond to Section 523(a) of the Educational Amendments of 1976 (Public Law 94-482). This instrument is one of a set of seven instruments developed and used in the study. A complete review of existing secondary data, literature, and documentation was completed to formulate study hypotheses and develop the interview questionnaires. Key question areas were identified as follows: (a) demographic information for state, local, education agency, or community college supervisors, school personnel, and students; (b) status of planning for or implementing sex fairness activities by state, local, and school agencies; (c) status of sex fairness programs and Title IX activities at state, local, and school agencies; (d) documentation of sex fairness activities, programs, and results; (e) current enrollment data of vocational education students within the sample schools; (f) staffing patterns at the state, local, and school levels; and (g) awareness of, and attitudes toward, sex inequities which may result in sex stereotyping in vocational education and the labor force. The instruments were field tested in four states and then revised prior to use.

One instrument was used with 49 state directors of vocational education. The other instrument was used with approximately 400 state agency personnel. Results of the study are available in Volume 1 as cited in the references.

Validity. Each instrument developed for the Vocational Education Equity Study passed through a series of review and revision sessions before submission to the Office of Management and Budget (OMB). OMB clearance was obtained on each instrument. The systematic review process was rigorous in nature and is considered by the authors as sufficient evidence of content validity of the instruments.

SAMPLE ITEMS

State Director Form

1. Is your state taking action in the following areas to develop and/or sponsor programs and activities that are designed to reduce sex stereotyping in all vocational education programs?

   1. No
   2. Yes
   9. Don't know

1a. Fund or sponsor model programs or activities to reduce sex inequities

If yes, who on the staff can give us further information?

State Agency Personnel Form

Please indicate which of the following practices exist now in your state.

INTERVIEWER: ASK OCCUPATIONAL AREA SPECIALISTS TO ANSWER WITH RESPECT TO THEIR AREAS. OTHERS RESPOND FOR VOCATIONAL EDUCATION IN GENERAL.

Institutional Sexism

1. Commonly (at least 50% of the time)
2. Just some (less than 50% of the time)
3. Rarely, if at all
9. Don't know

1 2 3 9 6. Rules or regulations denying admission to certain courses or programs on the basis of sex.

1 2 3 9 7. Quotas limiting the number of males or females admitted to certain courses or programs.

1 2 3 9 8. Unwritten understandings that some courses or programs are (were) for males and other courses for females, even though there is (was) no formal policy to that effect.

1 2 3 9 9. A tendency for counselors to suggest traditional options to male and female students undecided as to a career. (A traditional option for a student is one in which 80% or more of the students pursuing that option are of the same sex as that student.)

1 2 3 9 10. A tendency for counselors to discourage already interested students from entering nontraditional programs. (A nontraditional program for a student is one in which 80% or more of the students in the program are of the opposite sex.)

1 2 3 9 11. A reluctance by teachers to have nontraditional students in their courses.

1 2 3 9 12. A tendency to take the sex of the students into consideration in determining the type of work/study, cooperative education, or job placements provided for students.

1. I would like to ask you about efforts to reduce sex inequities for staff. Is your state currently implementing or planning to implement any recruitment, hiring, or promotion programs or activities for state or local staff for positions normally held by persons of the other sex?

1 _____ No
2 _____ Yes
9 _____ Don't know

2. Pick out the practice in which you have observed the most change in the past five years. Please describe the change, and what brought it about.

AVAILABILITY

The instruments are contained in the handbook cited in the references. Information on the availability of the handbook and related materials and reports can be obtained from the authors.

REFERENCES

Dahl, P., Harrison, L., & Parks, B. Replication handbook (Vol. 4). Palo Alto: American Institutes for Research, 1979.

Harrison, L., Dahl, P., Shaycoft, M., & Parks, B. Primary data of the Vocational Education Equity Study (Vol. 1). Palo Alto: American Institutes for Research, March 1979.

Parks, B., & Harrison, L. A model to assess the extent of sex discrimination and sex stereotyping in vocational education. Journal of Research and Development in Education, 1979, 2(3), 29-33.

VOCATIONAL EDUCATION EQUITY STUDY
STUDENT INTERVIEW AND ATTITUDE QUESTIONNAIRE

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Factual questionnaire and opinion inventory interview; attitude questionnaire

MEASUREMENT VARIABLES

Institutional sexism; sex stereotyping in vocational education; progress in implementing sex equity programs; awareness of sexism; career awareness, choice and motivation; sex role perception.

TARGET POPULATION

The instrument is designed to be used with secondary and postsecondary students enrolled in vocational education.

INSTRUMENT FORMAT

The instrument has two distinct parts: a student interview and a student attitude questionnaire. The student interview is designed as a personal interview and consists of 24 items in multiple choice, rating scale, ranking, and open-ended question format. These items deal with gathering information in the following areas: (1) educational background and current enrollment status; (2) ideal occupational program situation; (3) attendance at or awareness of school sponsored programs/activities related to sex equity; (4) participation in work study or cooperative education programs; (5) methods of acquaintance with vocational education programs; (6) sources of encouragement or discouragement; and (7) attrition rate estimates for males and females. The student attitude questionnaire is designed for self-administration and consists of 20 items in multiple choice and rating scale format. These items deal with the following areas: (1) student attitudes about sex inequities in the labor force; and (2) attitudes about roles and responsibilities of women and men in the labor force and satisfaction with vocational programs. The students are directed to indicate age and race and to rate themselves in terms of academic ability.

ADMINISTRATION

The interview is designed for individual administration and requires approximately 30 minutes for completion. The attitude questionnaire is designed for completion by the student individually or in small groups. Directions for administration are provided throughout both parts of the instrument. A replication handbook describing the instrument and its development and use is available (see references).

SCORING

Responses to items are intended to show a level of implementation of specific sex equity activities and efforts rather than to yield an individual score. Frequencies and cross tabulations can be calculated on all multiple choice items. Open-ended items must be coded by users before frequencies can be calculated. Examples of scoring and data analyses procedures are available in the primary data volume which presents the results of the initial study using the instrument (see references).

DESCRIPTION

Development. The instrument is one of seven developed for use in a congressionally mandated study to determine the extent and nature of sex stereotyping and sex discrimination in vocational education. The Vocational Education Equity Study conducted by the American Institutes for Research, was designed to respond to Section 523(a) of the Educational Amendments of 1976 (Public Law 94-482). A complete review of existing secondary data, literature, and documentation was completed to formulate study hypotheses and develop the interview questionnaires. Key question areas were identified as follows: (a) demographic information for state, local, education agency, or community college supervisors, school personnel, and students;

(b) status of planning for and/or implementing sex equity activities by state, local, and school agencies; (c) status of sex fairness programs and Title IX activities at state, local, and school agencies; (d) documentation of sex equity activities, programs, and results; (e) current enrollment data of vocational education students within the sample schools; (f) staffing patterns at the state, local, and school levels which may result in sex stereotyping in vocational education and the labor force; and (g) awareness of and attitudes toward sex inequities which may result in sex stereotyping in vocational education and in the labor force. The instrument was field tested in four states and then revised prior to use.

In the initial study the instrument was used with a random stratified sample of approximately 3,500 secondary and postsecondary students enrolled in vocational education classes. Results of the study are available in Volume 1 as cited in the references.

Validity. Each instrument developed for the Vocational Education Equity Study passed through a series of review and revision sessions before submission to the Office of Management and Budget (OMB). OMB clearance was obtained on each instrument. The systematic review process was very rigorous in nature and is considered by the authors as sufficient evidence of content validity of the instrument.

SAMPLE ITEMS

Interview Form

1. What vocational program are you now taking?

2. How important were the following in helping you decide on your occupation? Rate each factor as "unimportant," "somewhat important," and "very important."

   1. Unimportant
   2. Somewhat important
   3. Very Important
   9. N/A

1 2 3 9 a. Academic activities I pursued at school.

1 2 3 9 b. Vocational education activities I pursued at school.

1 2 3 9 c. Activities I did during the summer time or outside of school.

3. What are your plans after leaving the school you are presently attending?

   a. no plans for the immediate future
   b. take any job I can get
   c. enter the field for which I am currently training
   d. enter an academic program at a junior or community college
   e. enter a vocational program at a junior or community college

f. attend a 4-year college or university
g. join the military service
h. become an apprentice or receive on-the-job training
i. work and go to school at the same time
j. other. Specify ________________

Attitude Questionnaire Form

13. Do you think that sex discrimination in the labor force is a problem? (Check one)

1. No, it is not a problem
2. I'm not sure
3. Yes, but it's only a minor problem
4. Yes, it is a serious problem

PLEASE INDICATE WHETHER YOU FEEL EACH OF THE STATEMENTS BELOW IS TRUE OR FALSE AS FOLLOWS:

1. Always or almost always true
2. Tends to be true
3. Tends to be false
4. Always or almost always false

1 2 3 4 16. Male vocational education students prefer to be enrolled in classes that are mostly male.

1 2 3 4 17. Female vocational education students prefer to be enrolled in classes that are mostly female.

1 2 3 4 18. Employers are not willing to hire men in jobs which have been traditionally held by women.

1 2 3 4 19. Employers are not willing to hire women in jobs which have been traditionally held by men.

AVAILABILITY

The instrument is contained in the handbook cited in the references. Information on availability of the handbook and related materials and reports can be obtained from the authors.

REFERENCES

Dahl, P., Harrison, L., & Parks, B. Replication handbook (Vol. 4). Palo Alto: American Institutes for Research, March 1979.

Harrison, L., Dahl, P., Shaycoft, M., & Parks, B. Primary data of the Vocational Education Equity Study (Vol. 1). Palo Alto: American Institutes for Research, March 1979.

Parks, B., & Harrison, L. A model to assess the extent of sex discrimination and sex stereotyping in vocational education. Journal of Research and Development in Education, 1979, 2(3), 29-33.

Management and Leadership Characteristics and Skills

LEADERSHIP AND SELF-DEVELOPMENT SCALE

AUTHOR

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Carbondale, Illinois 62901

Patricia B. Elmore
Guidance and Education
Psychology Department
Southern Illinois University
Carbondale, Illinois 62901

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Management and leadership skills

TARGET POPULATIONS

The instrument was designed for use with female postsecondary students and other adult women.

INSTRUMENT FORMAT

This instrument is a summated rating scale composed of 25 items.

ADMINISTRATION

The scale is designed for group administration. Directions are printed on the form. Estimated administration time is 10 minutes.

SCORING

The scale may be hand or machine scored. For questions 1-3, 5-8, and 10-16 weights are assigned as follows: Always = 5, Almost Always = 4, Sometimes = 3, Hardly Ever = 2, and Never = 1. For questions 4 and 9 weights are assigned as follows: Always = 1, Almost Always = 2, Sometimes = 3, Hardly Ever = 4, and Never = 5. For questions 17-21 and 23-25 weights are assigned as follows: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree = 1. For question 22 the weights are assigned as follows: Strongly Agree = 1, Agree = 2, Neutral = 3, Disagree = 4, and Strongly Disagree = 5. The total score is computed by summing the weights for the 25 individual items. A high total score is assumed to indicate good leadership qualities, while a low total score is assumed to indicate poor leadership qualities.

DESCRIPTION

Development. This scale was developed for use in the Leadership and Self-Development Workshop for Women conducted at Southern Illinois University. The instrument was administered before and after the workshop to 22 women to measure the workshop participants' increase in leadership qualities attributable to the workshop. The items were developed to incorporate concepts related to assertiveness, risk taking, self-concept, setting goals, decision making, obtaining a following, conflict resolution, group roles, and evaluation. The difference between the pre-workshop and post-workshop mean scores (90.5 and 99.36) was significant at the .05 level. Additional normative studies were in process at the time of this writing.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

5 = Always
4 = Almost always
3 = Sometimes
2 = Hardly ever
1 = Never

How likely are you to suggest a new idea?	5	4	3	2	1
How likely are you to ignore personality conflicts?	5	4	3	2	1

5 = Strongly agree
4 = Agree
3 = Neutral
2 = Disagree
1 = Strongly disagree

A good leader delegates more duties than she herself assumes.	5	4	3	2	1
I feel confident in a leadership role.	5	4	3	2	1

AVAILABILITY

The Leadership Scale may be reproduced from the research report cited in the references. The report is available from the authors at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Britton, V., & Elmore, P. B. Leadership and self-development workshop for women: A research report. Paper presented to a meeting of the American Personnel and Guidance Association, Chicago, April 1976.

Britton, V., & Elmore, P. B. Leadership and self-development workshops for women. Journal of College Student Personnel, 1977, 18, 318.

Britton, V., & Elmore, P. B. Developing leadership skills in women students: A workshop approach. NASPA Journal, February 1979, in press.

SRA OPINION SURVEY FOR MEN AND WOMEN

AUTHORS

Benson Rosen
Thomas H. Jerdee
University of North Carolina
Graduate School of Business Administration
Carroll Hall
Chapel Hill, North Carolina 27514

DATE DEVELOPED

1976

INSTRUMENT TYPE

Opinion survey

MEASUREMENT VARIABLES

Awareness of sexism; opinions about the employment characteristics of women

TARGET POPULATION

The instrument is designed for adults, particularly those employed in any organization setting. Results of the survey are intended for use by managers and employees.

INSTRUMENT FORMAT

The survey is an 88-item instrument, in two parts: Part I covers four general areas of women's employment traits, including work attitudes and habits (16 items), interests and motivation (14 items), temperament (18 items), aptitudes, knowledge and skills (20 items). Part II covers attitudes toward organizational policies (20 items). Individuals respond to items on a 5-point scale ranging from 'men much more than women' to 'women much more than men' in Part I, and from 'strongly disagree' to 'strongly agree' in Part II.

ADMINISTRATION

The survey can be used as part of the SRA Sex Discrimination Awareness Program or as an independent tool to examine the attitudes and feelings of adults at all organizational levels. It takes about 20 to 30 minutes to administer and is intended primarily for groups. The Administrator's Guide presents detailed instructions for administration, statistical descriptions of norm groups, as well as the means, standard deviations, and mean differences between the national sample and the various subgroups analyzed.

SCORING

Scoring directions are included inside the test booklet, which has a self-contained scoring sheet. (A carbon paper transfers responses as the subject marks an answer.)

DESCRIPTION

Development. An experimental form of the survey was constructed and reviewed by SRA staff for relevance, ambiguity and duplication of content. The resulting 93-item form was administered to 846 female managers and 994 male managers and employees with management potential throughout the U.S. in 1975. A point biserial analysis was performed, and individual items were intercorrelated to eliminate overlapping items. The final survey emerged as a result of these analyses.

The survey is part of the SRA Sex Discrimination Awareness Program, which was designed to heighten managerial awareness of sex discrimination and to help managers deal with the problem. This survey is intended primarily to assess participants' opinions about the employment characteristics of women in order to bring out the basic beliefs and prejudices that should be dealt with in an awareness program. In addition, the survey assesses the participants' feelings about the differences in organizational policies toward men and women. The survey can be used as part of the entire Awareness Program or separately to assess the attitudes that underlie employee resistance to working equally with women in managerial positions. The organization can compare individual and group profiles with other individuals and organizations in the United States. The measure can also be used as a pretest and posttest to assess attitude change.

Reliability. The authors have reliability data that have not been analyzed.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

Data from the original administration were analyzed in terms of several variables including type of organization, geographical region, and level of responsibility. Although many analyses yielded no significant results, several significant relationships emerged in an expected direction, giving some evidence for construct validity. Specifically, it was found that female managers scored better than women in general, that men and women over 49 years of age scored worse than younger persons, that people with a college education scored better than those with high school diplomas, that men with female supervisors scored better than men with male supervisors, and that women working mainly with men scored better than those working mainly with other women.

SAMPLE ITEMS

A = Men much more than women
B = Men slightly more than women
C = No difference
D = Women slightly more than men
E = Women much more than men

Part 1:

1. Work Attitudes & Habits

9. Are likely to quit. A B C D E

2. Interests & Motivation

11. Like math, science, and high finance. A B C D E

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3. Temperament

18. Are narrow-minded. A B C D E

4. Aptitudes, Knowledge & Skills

12. Negotiate contracts effectively. A B C D E

Part 2:

SD = Strongly disagree
D = Disagree
U = Undecided
A = Agree
SA = Strongly agree

3. This organization recently has put more emphasis on training women than training men.

AVAILABILITY

The instrument may be ordered from:

Science Research Associates, Inc.
155 Wacker Drive
Chicago, Illinois 60606

REFERENCES

Rosen, B., & Jerdee, T. H. Identifying and coping with backlash to affirmative action programs. Business Horizons, in press.

Science Research Associates, Inc. SRA Sex Discrimination Awareness Program, Administrator's Guide. Chicago: SRA, Inc., 1976.

VOCATIONAL EDUCATION ADMINISTRATION

AUTHORS

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Marcia R. Schuley
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College of Education
Holton Hall
Kansas State University
Manhattan, Kansas 66506

Management and Leadership Characteristics and Skills

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude scale, survey questionnaire

MEASUREMENT VARIABLE

Leadership interest

TARGET POPULATION

The instrument is intended to be used with adults who are or who plan to become vocational teachers and administrators.

INSTRUMENT FORMAT

The instrument consists of a four-page questionnaire to be completed by all respondents and a special two-page questionnaire insert, the latter to be completed by female vocational educators only. Page one of the four-page questionnaire asks respondents to provide demographic information. For the remainder of this instrument, respondents are directed to use a Likert scale to indicate (1) the level of importance attached to each of a series of functions carried out by vocational education administrators and (2) the level of importance given to each of a series of qualifications which may be considered in hiring candidates for vocational administrator openings. A second scale is used to indicate the degree to which the respondent feels each of a series of factors contributes to a lack of interest in or prevents women from moving into vocational administration. The special insert for women vocational educators asks respondents (1) to indicate their level of confidence in their ability to perform given administrative functions and (2) to provide information on their highest educational (degree) aspiration, the highest administrative position they would like to assume, and positions for which they would volunteer in order to increase their administrative competencies.

ADMINISTRATION

The instrument is designed for group or mail-out administration and requires approximately 15 minutes for completion. Directions are printed on the questionnaires.

SCORING

Although guidelines for interpreting the scores for this instrument are not provided, it appears that results from an administration of the instrument yield a general picture of the respondents' interest and ability in vocational education administration and their perceptions of future opportunities. Results may be hand tabulated. The scale items are scored by summing points on individual items.

DESCRIPTION

Development. The instrument is designed to measure 11 demographic variables and the following six dependent variable concepts: (1) level of importance of administrative functions; (2) strength of barriers to women entering vocational administration coming from within women; (3) strength of barriers to women entering vocational administration coming from sources external to women; (4) values of qualifications for hiring vocational education administrators; (5) confidence in ability to perform administrative skills; (6) administrative aspirations.

Items concerning level of importance of administrative functions are based on a report of Project Active at Florida State University. From a review of the literature, that project compiled a list of 300 vocational administration competencies which were later condensed to 84 competency statements. A panel made up of district and school level administrators and supervisors was asked to judge the importance of each skill. Items retained on this instrument are those which were (1) determined to be in the top ten percent by all groups in the Florida study; (2) found significant by Florida in at least the 0.5 level when looking at the administrators' versus the supervisors' responses; and (3) mandated by federal legislation. Two additional items were added by another panel of judges who reviewed the questionnaire.

The two dependent variables measuring barriers to the participation of women in vocational administration were developed from a review of the literature, personal interviews with field experts, and recommendations of a panel of judges. For dependent variable (4), a list of qualifications was compiled from a review of the literature, and this list was merged with a list of qualifications and attributes culled from school advertisements for administrative openings. Additional items on unpaid/volunteer work experience were added. Variable (5), confidence of ability to perform administrative skills, measures the level of confidence women have in their ability to carry out each function listed previously in the items for dependent variable (1). Variable (6), the administrative aspirations of women, is an adaptation of an approach used by McMillin in considering aspiration level for administrative careers in education. Plans for additional data collection to establish validity and reliability were underway at the time of this writing.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

Management and Leadership Characteristics and Skills

SAMPLE ITEMS

Listed below are selected functions performed in the Administration of Vocational Education. Please circle the number that represents the level of importance you think is given to each function by administrators.

1 = High
2 = Medium high
3 = Medium low
4 = Low

Implement and maintain State Vocational Education standards 1 2 3 4

Recommend short- and long-range program goals 1 2 3 4

Plan and organize Vocational Education programs to meet changing labor needs 1 2 3 4

Below is a list of selected reasons that may prevent women from moving into Vocational Administration. Please circle the number that represents the degree you feel each reason contributes.

1 = Absolutely
2 = Usually
3 = Occasionally
4 = Rarely
5 = Never

Lacking ability to talk the language of commerce and/or industry in establishing and maintaining commercial contacts 1 2 3 4 5

Lack of public acceptance as a top administrative representative 1 2 3 4 5

Lack of criteria to evaluate qualifications of women possessing an interrupted career pattern 1 2 3 4 5

AVAILABILITY

The instrument is available at duplicating cost plus postage from Dr. A. P. Wilson, College of Education, Kansas State University. The authors would like copies of studies using the instrument.

REFERENCES

Legg, M. A progress report of activities in "To study a program to overcome sex bias barriers in women's qualifications for vocational administration posts." Presented at the American Vocational Association, Atlantic City, December 1977. (ED 151 613)

Neely, M. A., & Schuley, M. R. Assessing competencies for administrative positions. Paper presented at National Vocational Guidance Association, Washington, D.C., March 1978. (ED 155 321)

Neely, M. A., & Wilson, A. P. Final report: To study a program to overcome sex bias barriers in women's qualifications for vocational administration posts. Manhattan, Kansas: Kansas State University, College of Education, 1978. (ERIC number to be assigned)

WOMEN AS MANAGERS SCALE

AUTHORS

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3801 Cullen Boulevard
Houston, Texas 77704

Janet Taynor
Mental Health Service for
Clark County
34 West High Street
Springfield, Ohio 45502

DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitudes toward women

211

TARGET POPULATION

The instrument is designed for use with college students and adults.

INSTRUMENT FORMAT

The scale consists of 21 Likert-type items to be rated on a 7-point scale ranging from 'strongly disagree' to 'strongly agree.' The scale represents the following three factors: acceptance of women into managerial positions (10 items); female-specific barriers that traditionally have been viewed as prohibitive of permanent, full-time employment (five items); and traits necessary for success in a managerial position (six items).

ADMINISTRATION

The scale is designed for group administration. Directions accompany the instrument. Approximate administration time is 10 to 15 minutes.

SCORING

The scale is hand scored by summing the values of the reponses. Scoring directions are provided in the catalog cited in the references (Peters, Terborg, and Taynor, 1974).

DESCRIPTION

Development. The scale was designed to assess attitudes toward women in business situations. The authors propose four possible uses for the scale: (1) to define the existing barriers that inhibit the successful integration of women into management positions; (2) to assess the current situation in particular business organizations by providing a profile of employee attitudes relative to normative data; (3) to serve as an independent or a dependent variable in laboratory research (e.g., attitude change research); and (4) to serve as a pre and post measure in assessing the treatment effect of training programs.

Reliability. Split-half (odd-even) reliability for the final form was .84 ($p < .001$, $n = 541$), and .91 when corrected for length of test by the Spearman-Brown formula.

Validity. The correlation between a self-rated liberal-conservative attitude and this scale was .54 for males and .42 for females, a significant correlation as expected by the authors. In addition, Terborg and Ilgen (1975) report a correlation of .58 with the subjects' decision to hire a female engineer.

Terborg et al. (1977) present additional data on a study with a sample of 180 male and 100 female full-time employees of an international distributing company. The study collected data to test four predictions: (1) females would have more favorable attitudes toward women as managers than would males; (2) respondents of either sex whose mothers were employed outside the home when the respondents were children/adolescents would have more favorable attitudes toward women as managers than respondents whose mothers were not employed; (3) for respondents of each sex, there would be a positive relationship between attitudes toward the women's rights movement and attitudes toward women as managers; and (4) for female respondents only, there would be a positive relationship between degree of career commitment and favorability of attitudes toward women as managers.

Terborg and Ilgen (1975) found a low correlation ($r = .13$, $p < .10$) between this scale and the Crowne-Marlow Social Desirability Scale.

Norms. The Journal Supplement Abstract Service (JSAS) document cited in the references presents item analysis data and normative data for the three factors and the total questionnaire. The instrument was standardized on a sample of 541 undergraduates (346 male and 196 female) from four institutions: Purdue (n = 233), Southern Illinois University (n = 106), Georgia State University (n = 118), and College of Lake County (n = 84). Data were collected during spring and summer sessions in 1973 and include age, sex, and self-reported liberal-conservative attitudes toward the women's rights movement. Data were being collected on more diverse samples at the time of this writing.

Additional Information. Garland and Price (1977) present evidence for cross-situational stability of the scale as a measure of generalized attitudes toward women in management.

SAMPLE ITEMS

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Disagree or Agree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

2. Women have the objectivity required to evaluate business situations properly.

7. It is not acceptable for women to assume leadership roles as often as men.

13. Problems with menstruation should not make women less desirable than men as employees.

21. Women cannot be aggressive in business situations that demand it.

AVAILABILITY

The scale is copyrighted and may be ordered as Ms. No. 585 from:

Journal Supplement Abstract Service
American Psychological Association
1200 - 17th Street, N.W.
Washington, D.C. 20036

The authors would like copies of studies using the instrument.

REFERENCES

Garland, H., & Price, K. H. Attitudes toward women in management and attributes for their success and failure in a managerial position. Journal of Applied Psychology, 1977, 62(1), 29-33.

Peters, L. H., Terborg, J. R., & Taynor, J. Women as managers scale (WAMS): A measure of attitudes toward women in management positions. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 27. (Ms. No. 585)

Terborg, J. R., & Ilgen, D. R. A theoretical approach to sex discrimination in traditionally masculine occupations. Organizational Behavior and Human Performance, 1975, 13, 352-376.

Terborg, J. R., Peters, L. H., Ilgen, D. R., & Smith, F. Organizational and personal correlates of attitudes toward women as managers. Academy of Management Journal, March 1977, 89-100.

CHECKLIST FOR EVALUATING MATERIALS

AUTHOR

Women on Words & Images
P.O. Box 2163
Princeton, New Jersey 08540

DATE DEVELOPED

1977

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Sexism in vocational education materials

TARGET POPULATION

The instrument is designed to be used by vocational education instructors at the secondary and postsecondary levels.

INSTRUMENT FORMAT

The instrument consists of a series of questions to be asked when reviewing vocational education materials for sex bias. The questions relate to the topics of Language, Roles, Omissions, Physical Appearance, and Audio/Visual Materials.

ADMINISTRATION

One copy of the instrument is to be used by each reviewer for each set of materials to be evaluated. The checklist is self-explanatory and is accompanied by two small handbooks as cited in the references. Completion time will vary with the length and complexity of materials being reviewed.

SCORING

The instrument is designed so that the user may check off items that apply to the materials under consideration. Checked items indicate areas in which sex-bias is apparent. Thus, the more items checked the more sex-biased the material. The instrument is designed so that users may establish their own cut-off points in selecting acceptably non-biased materials.

Materials Assessment Guidelines

DESCRIPTION

Development. The guidelines were developed by Women on Words & Images under a grant from the U.S. Office of Education, Bureau of Occupational and Adult Education.

The development of the checklist was based on an analysis of 56 vocational education materials drawn from commercially produced materials as well as from Office of Education funded materials published after 1972. These materials included texts, tapes, filmstrips, and charts, and they represented 14 of the 15 occupational clusters identified by the U.S. Office of Education. The Marine Science cluster was not included because materials were not available.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the intrument adequately reflects the domain of content it was designed to measure.

SAMPLE ITEMS

Physical Appearance

- Are females described in terms of their physical appearance, and men in terms of accomplishment or character?
- Is grooming advice focused only on females and presented as a factor in being hired (e.g., advice to secretaries -- "proper girdles to firm buttocks")?
- Is a smiling face considered advisable only for a woman in many occupations?
- Are only men presented or described in terms of accomplishment or character rather than appearance?

Language

- Is the generic he used to include both males and females when sex is unspecified (e.g., the carpenter...he...)?
- When a woman or man holds a non-traditional job, is there unnecessary focus on the person's sex (e.g., the woman doctor, the male nurse)?
- Are occupational titles used with -man as the suffix (e.g., chairman, businessman)?

AVAILABILITY

The checklist is included in the Guidelines for Sex-fair Vocational Materials cited in the references. This publication may be purchased from:

The Dissemination and Utilization System
National Center for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210

Contact Dr. Norman Singer or Cindy Lacey for further information by calling toll free (800) 848-4815.

REFERENCES

Women on Words & Images. Guidelines for the creative use of biased materials in a non-biased way. Princeton, New Jersey: Women on Words & Images (undated).

Women on Words & Images. Guidelines for sex-fair vocational education materials. Princeton, New Jersey: Women on Words & Images (undated).

CHECKLIST FOR SEX-FAIR LIFE/CAREER PLANNING MATERIALS

AUTHOR

Janice M. Birk
University of Maryland-College Park
Counseling Center
College Park, Maryland 20742

DATE DEVELOPED

1976

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Awareness of sexism in career planning materials

TARGET POPULATION

The instrument is designed to be used by teachers, administrators, counselors, or paraprofessionals involved in the evaluation of materials for women's life and career planning programs.

INSTRUMENT FORMAT

The instrument is a checklist containing 14 items.

Materials Assessment Guidelines

ADMINISTRATION

The evaluator is instructed to read through the materials to be evaluated and then to answer the 14 questions. Time for completion depends upon the length and complexity of the materials evaluated.

SCORING

Guidelines for interpreting the results of the checklist are not provided. Determination of acceptable criteria for sex-fair materials is left to the discretion of the user.

DESCRIPTION

Development. The Checklist was prepared as one module of a personnel training program for providing non-sexist career education and free choice in behavior and careers. The module was developed by the National Consortium on Competency-Based Staff Development in cooperation with the American Institutes for Research. The Checklist may be used separately or in conjunction with this training program which instructs users on how to make valid and reliable judgments about sex-fair career planning materials. Items 7 through 12 were adapted from Women on Words & Images (1975) cited in the references.

SAMPLE ITEMS

	Yes	No	N/A
2. Do the illustrations show women predominantly as helpers, and/or men as leaders or figures of authority?	___	___	___
10. Is there evidence of tokenism? For example, one or two striking examples of equal sex treatment may be presented, but the material overall may be dominated by male role models and/or sexist language	___	___	___
13. Is there evidence of sexist language, such as using "man" or "mankind" rather than "people" or "persons" -- and using forms of the masculine pronoun (he, his, etc.) to refer to people in general?	___	___	___

AVAILABILITY

The instrument may be reproduced from Birk (1976) (see references), which may be purchased from:

The Publications Department
American Institutes for Research
P. O. Box 1113
Palo Alto, California 94302

The author would like copies of studies using the instrument.

REFERENCES

Birk, J. M. Providing life career planning for women and girls. Palo Alto, California: American Institutes for Research, 1976.

Women on Words & Images. Help wanted: Sexism in career education materials. New York: Educational Products Information Exchange, 1975.

CHECKLISTS ON SEXISM AND RACISM

AUTHOR

Council on Interracial Books
for Children, Inc.
1841 Broadway
New York, New York 10023

DATE DEVELOPED

1977

INSTRUMENT TYPE

Evaluation checklist, attitude scale

MEASUREMENT VARIABLES

Sexism and racism in schools, institutional sexism

TARGET POPULATION

The checklists are designed for use by secondary and elementary teachers, administrators, and counselors.

INSTRUMENT FORMAT

The Checklists for Sexism and Racism include 40 and 76 questions respectively, concerning seven areas as follows:

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Area	Number of Items Sexism	Number of Items Racism
Community	3	5
School Board	6	9
Administration	2	10
Teachers	9	12
Guidance	4	6
Students	8	23
Curriculum	8	11

Questions are answered on a 4-point scale ranging from 'yes, always,' to 'no, never'. An information sheet on the school district is also included with the checklists.

ADMINISTRATION

The checklists were designed initially for group administration in a teacher training or inservice program. They are administered by a trainer after presentation of a variety of support materials including definitions, examples, and statistical facts about racism and sexism. These materials accompany the checklists. The time required to complete the checklists varies depending on the amount of discussion desired but ranges from two to ten class periods.

SCORING

Evaluators or participants tally the number of responses. Suggested scoring directions are included with the checklists.

DESCRIPTION

Development. These checklists are part of a packet of materials which The Council on Interracial Books for Children (CIBC) developed to focus student or teacher discussion on how their school and most schools really are and how their school and most schools ought to be. The checklists offer activities to raise questions, set goals, and suggest strategies for change related to sexism and racism in schools.

The checklists are also designed to increase the user's awareness of the many forms of racism and sexism in education and to identify specific areas in need of change or improvement.

The checklists may be used in several ways, including the following: (1) as pre- and post-measures of the effectiveness of a program to reform an institution; (2) as materials for increasing awareness of students, teachers, or administrators; or (3) as a basis for planning strategies for change.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure.

SAMPLE ITEMS

A = Yes, always
B = Sometimes
C = Rarely
D = Never

Checklist on Sexism:

04. Are half the members of the [School] Board female?

11. Do administrators place high priority on creating and enforcing policies and practices which are aimed at achieving sexual equity and anti-sexist education?

22. Are counselors informed of the realities of sex discrimination in employment, and in turn do they provide such information to all students?

Checklist on Racism:

03. Are all parents made to feel welcome and comfortable when they visit a school?

34. Do teachers encourage full participation in all classes of extracurricular programs by Third World students?

44. If IQ and/or standardized achievement tests are used, are they offered in the language in which each student is most proficient?

AVAILABILITY

The checklists may be ordered from:

Robert Moore, Resource Director
Council on Interracial Books for
Children, Inc. (CIBC)
1841 Broadway
New York, New York 10023

REFERENCES

Council on Interracial Books for Children. School checklist for racism and sexism. New York: New York Racism and Sexism Resource Center for Educators, a Division of the Council on Interracial Books for Children, Inc., 1977.

Council on Interracial Books for Children. Fact sheets on institutional sexism. New York: New York Racism and Sexism Resource Center for Educators, a Division of the Council on Interracial Books for Children, Inc., 1977.

CONTENT ANALYSIS OF SEXISM IN TEXTS IN TEACHER EDUCATION

AUTHORS

Myra and David Sadker
American University
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016

DATE DEVELOPED

1977

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Sexism in curriculum materials

TARGET POPULATION

The instrument is designed for use by educators and curriculum developers concerned with post-secondary level instructional materials.

INSTRUMENT FORMAT

The instrument is a 20-page review form to be used in evaluating sexism in teacher education texts. For each text reviewed, evaluators use Part One of the instrument to summarize: (1) space allocations given in the text to males, females, and minorities in general, as well as space allocation given to the issue of sexism and sex differences; (2) use of general nouns and pronouns (i.e., the use of "man" or "he" in the text without regard to the sex of the individual being discussed), and (3) pictorial representations. Part Two of the instrument is divided into two sections. Section A provides guidelines for evaluating a text with regard to (1) validity and accuracy of the information presented; (2) non-stereotypic presentations; (3) integration of information on sexism and contributions of females into the text; (4) the balance and comprehensiveness of information on women, sexism, and sex differences; and (5) the realistic treatment of information. Questions in this section are in open-ended format. Section B presents seven questions in Likert format asking the reviewer's opinion on whether the text would provide a teacher education student with (1) an understanding of the impact of sexism in education and (2) motivation to eliminate sexism.

ADMINISTRATION

One instrument is used for each text being evaluated. Time required for a complete review will vary with the size and complexity of the text. A Rater's Manual which accompanies the instrument explains each evaluation question in detail. The authors indicate that the instrument as it is available at this writing is so detailed that it is difficult to achieve rater accuracy and reliability. They recommend some simplification of the instrument.

SCORING

The overall rating of a text may be calculated by summing responses to the seven items in Evaluation, Part B, of the instrument. The Rater's Manual details the rating construction for the entire instrument.

DESCRIPTION

Development. The instrument was developed under a WEEA grant as a content analysis tool to assess the treatment of women and the treatment of issues related to sexism in the most widely used teacher education texts. Texts to be evaluated are those used in Introduction to Education, Psychology of Education, and Methods courses, the typical core courses in teacher education programs. The instrument is designed to assess five forms of bias in curriculum materials:

(1) Invisibility - underrepresentation of certain groups.

(2) Stereotyping - assignment of traditional roles or attributes to a particular group.

(3) Imbalance/Selectivity - perpetuating bias by presenting only one interpretation of an issue, situation, or group of people.

(4) Unreality - presentation of an unrealistic portrayal of our history and/or contemporary life experience

(5) Fragmentation/Isolation - separating issues relating to minorities and women from the main body of the text.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure.

SAMPLE ITEMS

II. CONTENT

A. Space Allocation

1. Total number of pages devoted to:

Females _____ Males _____

2. Within these totals, representation by pages of male/female minority group members:

Group	Males	Females
________	________	________

B. Language

1. Generic pronoun

a. Is it your impression that this text primarily uses the pronoun he to refer to a person in general, regardless of sex? _____ Yes _____ No

b. Frequency method

1) Using a table of random page numbers, 200 incidences of generic he were found in _____ number of pages.

C. Pictorial Representations

1. Total number of illustrations (drawings, photographs) ________.

2. Total number of figures in illustrations ________.

a. Within the above, number of the following depicted:

_____ women _____ girls

_____ men _____ boys

AVAILABILITY

The guidelines and Rater's Manual are available from the authors at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Sadker, M., Sadker, D., & Kramer, E. P. Analysis of sex bias in teacher education textbooks. Paper presented at the meeting of the American Educational Research Association, San Francisco, April 1979.

CRITERIA FOR THE EVALUATION OF INSTRUCTIONAL MATERIALS

AUTHORS

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University of Alabama
Tuscaloosa, Alabama 35401

Lois Conley Smith
Carver High School
2001 W. Fairview
Montgomery, Alabama 36105

DATE DEVELOPED

1976

INSTRUMENT TYPE

Evaluation guidelines

MEASUREMENT VARIABLE

Sex role stereotyping in instructional materials

TARGET POPULATION

The instrument was designed primarily for teachers at the secondary level.

INSTRUMENT FORMAT

The criteria are in outline form and are grouped into five main categories: (1) Visibility of Males and Females; (2) Role Models, Male and Female; (3) Behavior; (4) Language; and (5) Parallel Treatment. Several criteria are listed under each heading; a total of 36 criteria are presented. Additional materials explain specifically what the criteria mean, provide examples, and describe how to use the criteria.

ADMINISTRATION

The authors provide a step-by-step procedure for evaluating instructional materials and note that book selection committees and supervisory personnel may want to conduct more comprehensive investigations.

SCORING

The suggested procedure for scoring is first to construct a tabulation sheet by category, on which to record the frequencies and percentages of males and females that are represented in the material being evaluated. An example of scoring and further information is included with the criteria. The authors suggest courses of action that may be taken if discriminatory materials are identified and suggest more formal evaluation approaches to take if the results are to be used for a committee report or a published document.

DESCRIPTION

Development. These criteria appear in Grambs (Ed.) (1976), Chapter 5. In this chapter, Ferguson and Smith review some recent studies that have researched the status of sex role stereotyping in instructional materials and have documented the specific ways in which females are discriminated against (in terms of abilities and personal effectiveness) in school materials and literature. Using primarily the results from two of these studies (Weitzmann, Eifler, Hokada, & Ross, 1972, and Women on Words and Images, 1972) and the guidelines prepared by Scott, Foresman and Company and McGraw-Hill Publishing Company, the authors developed the criteria. They also added elements from their own experiences, which they felt would increase the criteria's usefulness for teachers.

The criteria were developed for teachers to use informally to evaluate instructional materials for sex role stereotyping. The authors indicate that the criteria may also be a useful tool for teachers to demonstrate discriminatory materials to school boards and other decision makers.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure.

SAMPLE ITEMS

STEP 1. Construct a simple tabulation sheet as follows:

	Male	Female
I. Visibility		
Stories or Episodes	%	%
Characters	%	%
Pictures	%	%
II. Role Models	list typical roles for each sex	
III. Behavior		
Active Mastery	%	%
Dependence	%	%
IV. Language		
Pronouns (generic)	%	%
Occupational Terms	%	%
Demeaning, Patronizing	%	%
V. Equivalent terms/names/titles	% equivalent	% inequivalent

AVAILABILITY

The criteria appear in Chapter 5 of the bulletin cited in the references (Grambs, 1976). Permission to reprint material from the Bulletin must be obtained from the National Council for the Social Studies. Further information may be obtained from:

Jean Dresden Grambs, Editor
National Council for the Social Studies
2030 M Street NW - Suite 406
Washington, DC 20036

REFERENCES

Grambs, J. D. (Ed.) Teaching about women in the social studies: Concepts, methods, and materials. Bulletin 48. Washington, D.C.: National Council for the Social Studies, 1976.

Weitzmann, L. J., Eifler, D., Hokada, E., & Ross, C. Sex role socialization in picture books for children. American Journal of Sociology, 1972, 77, 1125-1149.

Women on Words and Images. Dick and Jane as victims: Sex stereotyping in children's readers. Princeton: Central New Jersey National Organization for Women, 1972.

VALUES CHECKLIST

AUTHOR

Council on Interracial Books
for Children, Inc.
1841 Broadway
New York, New York 10023

DATE DEVELOPED

1976

INSTRUMENT TYPE

Materials checklist

MEASUREMENT VARIABLE

Sexism and racism in children's books.

TARGET POPULATION

The instrument is designed to be used by children's librarians, elementary and secondary teachers, children's book editors, and parents.

INSTRUMENT FORMAT

The checklist allows a reviewer to rate both art and words on 11 criteria and to rate literary quality and art quality from excellent to poor. The 11 criteria define the extent to which the book is racist, sexist, elitist, materialistic, individualist, ageist, conformist, escapist, and culturally authentic, and the extent to which it builds positive or negative images of females and minorities and inspires action vs. oppression. The reviewer checks a box for each criterion.

ADMINISTRATION

The checklist is to be used only after a careful study of the introductory chapter of the book cited in the references (Council on Interracial Books for Children, 1976) in which the checklist appears. This chapter defines the categories in the list and discusses their importance.

SCORING

Each reviewer needs to determine what defines an adequate score. The evaluation of a book is summed up by a rating of Excellent, Good, Fair, and Poor for Literary Quality and Art Quality.

DESCRIPTION

Development. The Council on Interracial Books for Children developed this checklist based on nine years of work in reviewing children's books for racism and sexism. Meetings were held with minority and feminist reviewers to develop criteria to be used by the Human Values Book Project. Initially, reviewers were concerned primarily with racism, sexism, and cultural authenticity. Subsequently, they noted the relationship of those concerns with materialism and individualism. The criteria were expanded to include all the negative values the authors felt should be removed from children's books. The checklist was developed to reflect those concerns. Chapter 1 of the Council on Interracial Books for Children volume cited in the references (1976) explains in depth each criterion for the checklist. This book also presents reviews of over 200 books rated with this checklist.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity, and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

Both the art and text of books are checked on qualities such as:

- Anti-racist
- Anti-sexist
- Anti-conformist
- Non-materialistic
- Elitist
- Ageist

AVAILABILITY

The book containing the instrument, which is copyrighted, may be purchased from:

Council on Interracial Books for Children, Inc.
1841 Broadway
New York, New York 10023

The Council would like copies of studies using the instrument.

REFERENCES

Council on Interracial Books for Children. Human (and Anti-Human) Values in Children's Books. New York: New York Racism and Sexism Center for Educators, a Division of the Council on Interracial Books for Children, 1976.

BARBER SCALES OF SELF REGARD: PRESCHOOL

AUTHOR

Lucie W. Barber
Character Research Project
Union College
207 State Street
Schenectady, New York 12305

DATE DEVELOPED

1975

INSTRUMENT TYPE

Observation schedule

MEASUREMENT VARIABLES

Cognitive and developmental level of maturity of preschool children

TARGET POPULATION

The scales are designed to be used to judge the developmental levels of children between the ages of two and five. The scales may be used by parents and by other adults (e.g., teachers, counselors) who have had extensive exposure to and interaction with the child being judged. In addition, the scales may be used as teaching devices for adults enrolled in early childhood education, parent education, and teacher training programs.

INSTRUMENT FORMAT

The instrument consists of observation schedules covering seven categories of personal and interpersonal development. When combined, the rating scores for the seven categories are intended to provide an overall profile of the self regard of preschool children. The instrument package includes a Guide for Parents, a Manual for use by professionals, a pamphlet of instructions for developing the profile, and individual rating forms for each of the seven scale categories: Purposeful Learning of Skills, Completing Tasks, Coping with Fears, Children's Responses to Requests, Dealing with Frustrations, Socially Acceptable Behavior, and Developing Imagination in Play. Each rating form provides a general overview of the category and specific descriptions with examples of five stages of development within that category. The judge rating the child is asked to read through the

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descriptions of the five stages of development for each rating scale and indicate the stage which best describes the child's present behavior. The stages are ordered sequentially and have been assigned points ranging from 1 (least mature developmental stage for a preschool child) to 5 (most mature). The rating points for all seven scales are then transferred to a profile form. A line drawn to connect the scale points results in a picture of the child's level of self regard. Profiles are dated so that those drawn at different times may be compared to assess the child's development periodically.

ADMINISTRATION

The instrument is designed for individual administration and should be readministered periodically for assessment of developmental growth. The instrument is not designed for the purpose of making comparisons between children. It is recommended that a rating be made on only one of the seven scales at a time, allowing a day or more to lapse before continuing to the next scale. Directions are printed on each scale form. Field tests of the scales indicate that 15 minutes is sufficient time for completing one scale.

SCORING

For each of the individual rating forms, the judge is asked which of the five scale points best describes this child most of the time. The judge selects the appropriate point and transfers this information to the profile form where the scores for all seven categories are kept.

DESCRIPTION

Development. The seven scales of self regard are based on a theoretical model of personality developed by John H. Peatling and David V. Tiedeman. The model specifies seven interactive components that combine to form self-image in the development of personality. Each of the seven Barber Scales measures one of the seven components of self-image in the Peatling/Tiedeman model.

Reliability. Interjudge reliability has been estimated by comparing the observed frequencies of mother-father agreement against expected frequencies assuming no relationship, in a study of 177 preschool children. All chi squares were highly significant ($p<.001$), suggesting that the relationship between mothers' and fathers' ratings are distinctly nonchance. While these results demonstrate that the seven scales have interjudge reliability, there is no statistic at present suggesting how much reliability is present. Test-retest reliability coefficients range from .84 to 1.00.

Validity. In order to provide an empirical measure of content validity, scale scores and chronological age were correlated in two separate studies. All seven scales showed a statistically significant correlation between scale scores and chronological age in both studies, suggesting that the scales validly measure a developmental phenomenon. Scores on the Barber Scales are uncorrelated with scores on the Self-Concept and Motivation Inventory (SCAMIN).

However, scores on the Barber Scales of Self Regard are correlated with scores on the Minnesota Personality Profile II (MPPII), which measures general emotional and personal adjustment, (r = .53), providing some evidence of concurrent validity.

Additional Information. Research on the Barber Scales of Self Regard continues at the Union College Character Research Project, where longitudinal data is being collected. Parent education programs are being field tested. Published results will be available.

SAMPLE ITEMS

The following directions are given for rating a child on each of the seven Barber Scales:

> In general, which of the five Scale Points best describes this child most of the time? Please check one box for this child.

Purposeful Learning of Skills Scale

Scale Point 5

Description

CHILDREN PRACTICE IN ORDER TO BE PREPARED

These children are learning all kinds of skills: motor skills, personal social skills, and cognitive skills. They are very purposively practicing because they sense a future reason for mastery of skills. They understand the sequence of events and can anticipate what will be happening to them. They want to be prepared as best they can.

Example

"She enjoyed our walking to school with her sister and crossing the street with the crossing guard. She has asked me to do it again so she can practice for the time she goes to school."

Scale Point 4

Description

CHILDREN ACCEPT COACHING AND HELP

These children have mastered sufficient skills so that their conflict to assert their independence has subsided. They are willing to accept coaching and help. In fact, they are apt to ask for it constantly. They are beginning to take an interest in other people and are purposively learning skills that involve others.

Example

"He watched older children flying kites and wanted to fly his own. After a number of attempts to get his kite up, he finally came and asked his father to help. He was overjoyed when his kite was finally in the air."

Scale Point 3

Description

THE "ME DO IT" STAGE

These children experience the joy of achievement as they begin to master many more complex skills. Motor skills and language skills predominate. They will practice by themselves, indeed, often refuse any help. This is the "me do it" stage. It is difficult for them to accept help because they seem driven to assert their beginning independence. Yet they are also apt to revert to very dependent behavior when the skills are difficult.

Example

"I have been teaching her the ABC's in song fashion. Now when I hear her singing them and join in, she stops me and says, 'Listen me do it.'"

Scale Point 2

Description

CHILDREN IMITATE AND REPEAT

These children seem to want to learn new skills enough to put some effort into practice. They imitate and repeat endlessly. However, they seem to need constant reinforcement and praise from parents, and prefer practicing skills with a parent rather than alone.

Example

"She has been practicing learning to ride her tricycle and is finally able to push the pedals. She insists, however, that I stand there and watch her."

Scale Point 1

Description

CHILDREN PRACTICE WHAT STRIKES THEIR FANCY

These children are learning such things as names of colors, how to draw lines on paper, going up and down stairs, and other skills that are new to them. However, their practice is anything but consistent and what they learn is whatever strikes their fancy at the moment. There seems to be no rhyme or reason to their activities, at least from an adult point of view.

Example

"He climbs everywhere. Today he climbed up on the desk where there was a pencil and paper and he proceeded to draw up-and-down strokes on the paper."

AVAILABILITY

The entire packet of copyrighted materials may be obtained from:

Character Research Press
207 State Street
Schenectady, New York 12305

The author would like copies of studies using the instrument.

CROSS REFERENCES

Buros, O.K. (Ed.). The Eighth Mental Measurements Yearbook. Highland Park: The Gryphon Press, 1978.

ETS Test Collection. Tests in Microfiche. Princeton, New Jersey: Educational Testing Service.

BEM SEX ROLE INVENTORY (BSRI)

AUTHOR

Sandra L. Bem
Department of Psychology
Uris Hall
Cornell University
Ithaca, New York 14853

DATE DEVELOPED

1974

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Self concept, sex role perception, masculinity, femininity, androgyny

TARGET POPULATION

The instrument is designed for use with college students and other adults.

INSTRUMENT FORMAT

The Bem Sex Role Inventory (BSRI) consists of 60 adjectives--20 adjectives describing masculine characteristics, 20 adjectives describing feminine characteristics, and 20 adjectives describing neutral characteristics (filler items). A short form of the instrument has been developed which consists of 30 of the original 60 items, of which 10 are masculine, 10 are feminine, and 10 are neutral. All adjectives are intermixed to form a single list of characteristics. To complete this paper-and-pencil self-report inventory, a person indicates on a scale from 1 to 7 ('never or almost never true' to 'always or almost always true') how well each characteristic describes herself or himself.

ADMINISTRATION

Either individual or group administration is possible; however, for individuals who are not university undergraduates, a group administration will provide the necessary basis for medians for the masculinity and femininity scores. Approximate administration time is 20 minutes for the long form.

SCORING

The BSRI, long or short form, can be scored either by hand or by computer. Directions for both procedures are in the scoring packet, which is available from the the publisher.

DESCRIPTION

Development. During the winter and spring of 1973, 444 male and 279 female college students in introductory psychology took the BSRI. It was also administered to 117 male and 77 female paid volunteers at a California junior college.

The purpose of this instrument is to provide a measure of self-reported personality characteristics. Masculinity and femininity are treated as two independent dimensions rather than as opposite ends of a single dimension, and a person is scored as masculine (high masculine-low feminine), feminine (high feminine-low masculine), androgynous (high masculine-high feminine), or undifferentiated (low masculine-low feminine). An Androgyny Difference Score (Femininity minus Masculinity) can also be computed, but this procedure is no longer recommended.

The author hopes the development of the BSRI will encourage investigators in the areas of sex differences and sex roles to question the traditional assumption that it is the sex-typed individual who typifies mental health and to begin focusing on the behavioral and societal consequences of more flexible sex-role concepts.

Reliability. Coefficient alphas, computed separately for the Masculinity and Femininity scores (long form) of subjects in each of the two norming samples ranged from .70 to .86. The Androgyny Difference Score demonstrated a reliability of .85 and .86 with the college and junior college samples respectively. The Masculinity and Femininity scores are not only logically independent but also empirically independent. (College female r = -.14, male r = .11; junior college female r = -.07, male r = -.02).

To establish test-retest reliability, the BSRI was administered a second time to 28 males and 28 females from the college normative sample about four weeks after the first administration. The Product-moment correlations computed for the first and second administrations of the BSRI provided high reliability for the Masculinity, Femininity, and Androgyny scores (Masculinity r = -.90; Femininity r = .90; Androgyny r = .93).

Validity. The author compiled a list of 200 personality characteristics for the Masculinity-Femininity scales and 200 more characteristics for the Social Desirability scale. One hundred Stanford University undergraduates (50 female, 50 male) rated the desirability of these 400 personality characteristics as either "for a man" or "for a woman." The final items for the BSRI were selected on the basis of those rated more desirable in American society for one sex than for the other.

Subjects for the test-retest study also filled out the Masculinity-Femininity scales of the California Psychological Inventory (CPI) and the Guilford-Zimmerman Temperament Survey. The author found that the BSRI is not correlated with the Guilford-Zimmerman scale although it shows moderate correlation with the CPI. She proposes that the fact of the low correlations indicates that the BSRI is measuring an aspect of sex roles which is not directly tapped by either of these two scales.

For another study, subjects were preselected for laboratory research on the basis of their BSRI scores in order to determine whether the BSRI, in fact, discriminated between those individuals who restrict their behavior in accordance with sex stereotypes and those who do not. Accordingly, the central hypothesis of the initial research was that a non-androgynous sex role restricts the range of behavior available to the individual as she or he moves from situation to situation. It was found in one study that sex-typed subjects were significantly more likely than androgynous or cross-sex-typed subjects to prefer sex-appropriate activity and to resist sex-inappropriate activity, even when such choices cost them money. Moreover, actually engaging in cross-sex behavior caused sex-typed subjects to report greater psychological discomfort and more negative feelings about themselves (Bem & Lenney, 1976). Additional support for the validity of the BSRI is provided by a series of studies on instrumental and expressive functioning in which it was found that only androgynous individuals consistently displayed high levels of behavior in both domains, whereas non-androgynous individuals were frequently low in one or the other of the two domains (Bem, 1975; Bem, Martyna, & Watson, 1976). By supporting the central hypothesis that non-androgynous individuals restrict their behavior in accordance with cultural definitions of desirable behavior for women and men significantly more than do androgynous individuals, this research provides strong validation for the BSRI.

SAMPLE ITEMS

1 = Never or almost never true
2 = Usually not true
3 = Sometimes but infrequently true
4 = Occasionally true
5 = Often true
6 = Usually true
7 = Always or almost always true

(F) Affectionate

(M) Self-reliant

(F) Yielding

(M) Assertive

(N) Helpful

(M) Defends own beliefs

(N) Truthful

(F) Cheerful

(N) Moody

(F) Sensitive to the needs of others

AVAILABILITY

The instrument is copyrighted and may be purchased from:

Consulting Psychologists Press, Inc.
577 College Avenue
P.O. Box 11636
Palo Alto, California 94306

It is also available from:

Tests in Microfiche
ETS Test Collection
Educational Testing Service
Princeton, New Jersey 08540
(Microfiche No. 00-1761)

REFERENCES

Bem, S. L. The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

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Bem, S. L., & Lenney, E. Sex typing and the avoidance of cross-sex behavior. Journal of Personality and Social Psychology, 1976, 33, 48-54.

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Edwards, A. L., & Ashworth, C. D. A replication study of item selection for the Bem Sex Role Inventory. Applied Psychological Measurement, 1977, 1, 501-507.

Feather, N. T. Factor structure of the Bem Sex Role Inventory: Implications for the study of masculinity, femininity, and androgyny. Australian Journal of Pychology, in press.

Pedhazur, E. J., & Tetenbaum, T. J. Bem Sex Role Inventory: A theoretical and methodological critique. Journal of Personality and Social Psychology, 1979, in press.

Walkup, H., & Abbott, R. D. Cross-validation of item selection on the Bem Sex Role Inventory. Applied Psychological Measurement, 1978, 2, 63-71.

Waters, C. W., Waters, L. K., & Pincus, S. Factor analysis of masculine and feminine sex-typed items from the Bem Sex Role Inventory. Psychological Reports, 1977, 40, 567-570.

Note: A complete bibliography is available from the author.

COOPERSMITH BEHAVIOR RATING FORM (BRF) AND SELF-ESTEEM BEHAVIORS (SEB)

AUTHOR

Stanley Coopersmith
Psychology Department
University of California
Davis, California 95616

DATE DEVELOPED

1967, revised 1975

INSTRUMENT TYPE

Observation schedule

MEASUREMENT VARIABLES

Self concept, self-esteem

TARGET POPULATIONS

The instrument is designed to be used by teachers or counselors to rate elementary and junior high school students.

INSTRUMENT FORMAT

The Behavior Rating Form (BRF) is a rating scale to be completed by an adult observer. The first 10 items are statements about behaviors which indicate self-assurance, and the last three items provide an index of behaviors that are defensive in nature. Each behavior is rated on a 5-point scale. The Self-Esteem Behaviors (SEB) is a shortened, revised version of the BRF. It consists of five items rating self-esteem behaviors, also using a 5-point scale.

ADMINISTRATION

One checklist is to be completed for each subject. Directions are not provided, but procedures for completing the instruments are self-explanatory. Completion time is approximately five minutes for the longer form.

SCORING

Both forms are hand scored. Scoring instructions and a key are provided for each form. The score is the sum of each item multiplied to provide a base of 100.

DESCRIPTION

Development. The BRF was designed to be used with the Coopersmith Self-Esteem Inventory as a way of comparing subjective and behavioral ratings of self-esteem. The statements on the BRF were selected after a series of observations of child behavior, interviews with teachers, principals, and a clinical psychologist, and evaluations and discussions with a research committee. The SEB was prepared on the basis of item analyses and factor analyses of the BRF. It uses the five items from the BRF which maximally differentiated between groups which differed in other indices of self-esteem.

Reliability. Low interrater reliability across teachers has been reported, although in an initial study of the BRF, a correlation of .73 was obtained between the ratings of 71 subjects by their principal and one teacher. Test-retest reliability by one teacher after an eight-week interval was reported at .93. Although teachers differ in perceptions, ratings of girls have been consistently higher than ratings of boys.

Validity. Evidence of concurrent validity is indicated by the correlation between self-esteem as measured by self report on the Coopersmith Self-Esteem Inventory (SEI) and teacher ratings on the Behavior Rating Form (r = .67, n = 1,748). In additional studies of the BRF, it has been correlated with other tests and indices of performance. The BRF correlates .41 with the total WISC IQ, .37 with standardized achievement test scores, .25 with sociograms (number of times chosen as friend by classmates), -.24 with Ideal Self-Real Self Discrepancy (i.e., the greater the discrepancy between ideal and real self, the lower the BRF). From these correlations and other data, it has been concluded that teacher ratings of self-esteem generally focus on achievement oriented behaviors that are nondisruptive to classroom practices and are associated with effectiveness in the academic setting. This would seem to suggest that teacher ratings using the BRF are situationally limited and do not include many of the assertive and expressive aspects of self-esteem that are nonacademically related. Users of the BRF should thus be cautioned that the relationship of the evaluator to the subject, as teacher or counselor or parent, may affect scores on the BRF since it affects interpersonal perception. Correlations between the BRF and its shorter version, the SEB, using small samples of elementary school children, have been found to exceed .70.

SAMPLE ITEMS

Behavior Rating Form

7. When this child is scolded or criticized, does he become either very aggressive or very sullen and withdrawn?

   Always   Usually   Sometimes   Seldom   Never

8. Does this child deprecate his school work, grades, activities, and work products? Does he indicate he is not doing as well as expected?

   Always   Usually   Sometimes   Seldom   Never

Behavior Rating Form and Self-Esteem Behaviors

1. Does this child adapt easily to new situations, feel comfortable in new settings, enter easily into new activities?

   Always   Usually   Sometimes   Seldom   Never

4. Does this child show confidence and assurance in his actions toward his teachers and classmates?

   Always   Usually   Sometimes   Seldom   Never

AVAILABILITY

Both scales and scoring instructions may be purchased from

Lafayette Therapy Center
936-G Dewing Avenue
Lafayette, California 94549

REFERENCES

Coopersmith, S. Antecedents of self-esteem. W.H. Freeman and Company: San Francisco, 1968.

COOPERSMITH SELF-ESTEEM INVENTORY (SEI) (Forms A, B and C)

AUTHOR

Stanley Coopersmith
Psychology Department
University of California
Davis, California 95616

DATE DEVELOPED

1968

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Self concept, self-esteem

TARGET POPULATION

Forms A and B are designed for children of both sexes from age 8 to 15. Form C is adapted for subjects over 15 years old.

INSTRUMENT FORMAT

The Self-Esteem Inventory (SEI) is in true-false (Like Me-Unlike Me) format. Form A consists of 58 items and has 5 subscales (general self, social self-peers, home-parents, lie scale, school academic). Form B contains 25 items and no subscales; Form C also contains 25 items.

ADMINISTRATION

The SEI is designed for group administration. Directions are printed on the forms. The long form (A) takes about 10 minutes and the short forms about half that time to complete.

SCORING

The instrument is designed to be hand scored. Complete scoring and interpreting instructions are provided.

DESCRIPTION

Development. The initial pool of items, classified by five psychologists as indicative of high or low self-esteem on rational grounds, were drawn from original research and from the work of Rogers and Dymond (1954). An item analysis of the responses of 121 children (Coopersmith, 1967) led to the development of a shorter form consisting of 25 items. The shorter form (Form B) correlates .86 with the longer form (Form A). Form C is an adaptation in which the language and situations are more meaningful for adult subjects. The correlation between total scores on Forms A and C exceeds .80.

Reliability. Split-half reliabilities of .87 (Fullerton, 1972) and .90 (Taylor & Reitz, 1968) have been reported. Both of these figures are for the long form. No data is available for the shorter form, but it may be less stable due to its shorter length. Test-retest reliabilities have been reported for the original 50-item scale as .88 over five weeks and .70 over three years (Coopersmith, 1967). Test-retest reliability for Form C has been reported as .88 over a five-month period and as .93 over a one-week period.

Validity. Studies of convergent validity, discriminant validity and predictive validity have been reported. In several separate studies of convergent validity, correlations of the SEI with other paper-and-pencil test measures of self-esteem have ranged from a low of .02 to a high of .63. A study of the discriminant validity of the SEI (Taylor & Reitz, 1968), yielded correlations of .75 and .44 with the Edwards and Marlowe-Crown social desirability scales. The high correlation of the SEI with social desirability is considered a problem by the author, until it can be interpreted in light of systematic findings. A variety of studies of predictive validity of the SEI have been conducted. On the basis of these studies, the author reports that SEI scores are significantly related to creativity, academic achievement, resistance to group pressures, willingness to express unpopular opinions, perceptual constancy (Coopersmith, 1967); perceived reciprocal liking (Simon & Bernstein, 1971); perceived popularity (Simon, 1972); anxiety (general and test) (Many, 1973); selection of difficult tasks (Goodstadt & Kipnes, 1971); effective communication between parents and youth (Matteson, 1974); family adjustment (Matteson, 1974). Additional findings are reported in the manual accompanying the instrument.

Norms. The SEI has been administered to over 50,000 children and adults since 1968. Subjects have included both adults and children across the entire socioeconomic range and members of many ethnic groups and subcultures (e.g., Blacks, Chicanos, Indians, Puerto Ricans). Norms are reported in the manual accompanying the SEI, with separate norms by sex, ethnicity, grade level, and in some cases socioeconomic status.

SAMPLE ITEMS

	Like Me	Unlike Me
4. I'm easy to like.	______	______
16. It takes me a long time to get used to anything new.	______	______
39. I don't like to be with other people.	______	______

AVAILABILITY

The SEI, scoring keys, and a descriptive manual can be purchased from:

Lafayette Therapy Center
936-G Dewing Avenue
Lafayette, California 94549

REFERENCES

Coopersmith, S. The antecedents of self-esteem. San Francisco: W. H. Freeman and Company, 1967.

Fullerton, W. S. Self-disclosure, self-esteem and risk taking: A study of their convergent and discriminant validity in elementary school children. Unpublished doctoral dissertation, University of California, Berkeley, 1972.

Goodstadt, B., & Kipnes, D. Report on achievement instruction materials. Philadelphia: Research for Better Schools, 1971.

Many, M. The relationship between anxiety and self-esteem in grades 4 through 8. Unpublished doctoral dissertation, 1973.

Matteson, R. Adolescent self-esteem, family communication and satisfaction. Journal of Psychology, 1974, 86, 35-47.

Simon, W. Some sociometric evidence for validity of Coopersmith's self-esteem inventory. Perceptual and Motor Skills, 1972, 34, 93-94.

Simon, W. E., & Bernstein, E. The relationship between self-esteem and perceived reciprocal liking: A sociometric test of the theory of cognitive balance. Journal of Psychology, 1971, 79, 197-201.

Taylor, L., & Reitz, W. The three faces of self-esteem. Department of Psychology, The University of Western Ontario, Research Bulletin No. 80, April 1968.

Note: There have been over 150 studies employing the Self-Esteem Inventory. A complete list of these publications is available from the Lafayette Therapy Center.

CROSS REFERENCES

Comrey, A. L., Backer, T. E., & Glaser, E. M. Sourcebook for mental health measures. Los Angeles: Human Interaction Research Institute, 1973.

DENMARK SELF-CONCEPT TEST

AUTHOR

Florence L. Denmark
The Graduate School and University Center
of the City University of New York
Program in Psychology
33 West 42nd Street
New York, New York 10036

DATE DEVELOPED

1964

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Self concept, attitude toward race

TARGET POPULATION

The instrument is designed for use with male and female students in grades 1 to 6 and is specifically intended for use with black children.

INSTRUMENT FORMAT

The test uses a modified semantic differential scale combined with three pictures -- one of a white child, one of a black child, and one an outline with no identifiable race representing 'self'. The subject is asked to describe each picture using a list of 15 pairs of adjectives. One pole of each adjective pair is positive and the other is negative.

ADMINISTRATION

The test is individually administered. The test administrator shows the pictures to the subject, reads the descriptive adjectives aloud, and then marks the subject's response. Estimated administration time is 15 to 20 minutes.

SCORING

The instrument is hand scored. Scoring is accomplished by totaling the values assigned to each descriptive trait. Scores on the three pictures are calculated separately and comparisons are made for self, own race, and other race concepts. Scoring instructions are available from the author.

DESCRIPTION

Development. This test was developed to assess self concept and attitude toward race of black and white children before and after school integration. It was administered, along with several other tests of concept formation, cognitive style, and vocabulary, to a sample of 87 black children and 63 white children ranging in age from 6 to 12 years, all of whom were attending a newly integrated school.

Reliability. Split-half reliability coefficients were determined for each picture and ranged from .51 to .85.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

lazy: __________: __________: __________: hard-working

sad: __________: __________: __________: happy

strong: __________: __________: __________: weak

poor: __________: __________: __________: rich

AVAILABILITY

The instrument and scoring instructions are available at duplicating cost plus postage from the author. The instrument is copyrighted. The author requests copies of studies using the instrument.

REFERENCES

Denmark, F. L. The effect of integration on academic achievement and self-concept. *Integrated Education: Race and Schools*, May-June, 1970, 34-41.

Denmark, F. L., Guttentag, M., & Riley, R. *Communication patterns in integrated classrooms and pre-integration subject variables as they affect the academic achievement and self-concept of previously segregated children*. (Final report to the Department of Health, Education, and Welfare. Project No. 6-8253) August 1967.

LUNDGREN AND SCHWAB SELF-ESTEEM QUESTIONNAIRE

AUTHORS

David C. Lundgren
Mary R. Schwab
Department of Sociology
University of Cincinnati
Cincinnati, Ohio 45221

DATE DEVELOPED

1974

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self-esteem

TARGET POPULATION

The instrument was designed for use with university students of both sexes.

INSTRUMENT FORMAT

The instrument presents four types of social relationships in a four-cell matrix involving the interaction of a status axis labeled "authority" and "peer" and an intimacy axis labeled "close" and "distant". Respondents first think of someone whom they know well and who knows them well to represent each cell, that is, a "close authority," a "distant authority," a "close peer" and a "distant peer." Respondents are then asked to indicate, along a 5-point scale, how each of the four identified persons would rate them and how they would rate themselves along each of eight trait dimensions.

ADMINISTRATION

The instrument is designed for group administration. Directions for administration are not provided. Approximate time to complete the questionnaire is 30 minutes.

SCORING

Subjective Public Esteem (SPE) scores and Self-Esteem (SE) scores are calculated by weighing responses to each trait and summing over traits and cells. Scoring directions are described in Lundgren and Schwab (1974a, 1974b).

DESCRIPTION

Development. The instrument was developed to examine sex differences in subjective public esteem (SPE) defined as the individual's perception of others' evaluation of himself or herself and self-esteem (SE) defined as the individual's own evaluation. It is also designed to examine the moderating effects of authority and intimacy on SPE and SE. The distinction between SPE and SE has a theoretical basis. The eight trait dimensions were determined by empirical findings in prior studies of self concept and personality perception.

Reliability. Coefficient alpha values for the four types of SPE scores were .69 (close authority), .77 (distant autority), .74 (close peer), and .64 (distant peer). Coefficient alpha for the SE scale was .56. Test-retest reliability over a two-week interval for a modified version of the SE scale was .86.

Validity. Some evidence of predictive validity is provided by the results of one study where the instrument has been used (Lundgren & Schwab, 1974a, 1974b), in which it detected significant effects as measured by analysis of variance and by multiple correlation. Analysis of data based on administration to 82 male and 92 female students indicated that for both males and females, intimacy is an important variable in determining the relationship between SPE and SE. Both males and females regard themselves less positively than they believe close others view them and more positively than they believe they are perceived by distant others. In addition, when stepwise multiple regression was used to examine interrelationships between the four types of SPE scores (close authority, distant authority, close peer, distant peer) as predictor variables and SE as a dependent variable, the four SPE variables in combination accounted for 56% of the variance of SE scores of males and 55% of the variance of SE scores of females. Further analysis of data from the same study (Schwab & Lundgren, 1978) demonstrated significant variation in SPE and SE scores as a function of birth order (firstborns vs. laterborns). Using a modified version of the instrument, Lundgren and Schwab (1979) found significant differences in SPE and SE scores of college students as a function of residential context (home vs. dormitory), and they found significant variations in anxiety as a function of SPE and SE (Lundgren & Schwab, 1977).

SAMPLE ITEMS

The eight trait dimensions included in the instrument are:

friendliness
independence
physical attractiveness
intelligence
openness
leadership ability
insightfulness
emotional stability

AVAILABILITY

The instrument is available from the authors at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Lundgren, D. C., & Schwab, M. R. *Status, intimacy, and discrepancies between self-esteem and the perceived evaluation of others*. Unpublished manuscript, University of Cincinnati, 1973.

Lundgren, D. C., & Schwab, M. R. *Sex differences in the social bases of self-esteem*. Paper presented at the Annual Meeting of the American Psychological Association, New Orleans, 1974a. (ED 113 669)

Lundgren, D. C., & Schwab, M. R. Sex differences in the social bases of self-esteem. *Personality and Social Psychology Bulletin*, 1974b, *1*, 316-318.

Lundgren, D. C., & Schwab, M. R. Perceived appraisals of others, self-esteem, and anxiety. *Journal of Psychology*, 1977, *97*, 205-213.

Lundgren, D. C., & Schwab, M. R. The impact of college on students: Residential context, relations with parents and peers, and self-esteem of college students. *Youth and Society*, 1979, *10*, 227-236.

Schwab, M. R., & Lundgren, D. C. Birth order, perceived appraisals of significant others, and self-esteem. *Psychological Reports*, 1978, *43*, 443-454.

MARTINEK-ZAICHKOWSKY SELF-CONCEPT SCALE

AUTHORS

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Leonard D. Zaichkowsky
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Boston, Massachusetts 02215

DATE DEVELOPED

1977

Self Concept and Self-Esteem

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self concept

TARGET POPULATION

The instrument is designed for use with children from first through eighth grades, including non-readers and non-English speakers.

INSTRUMENT FORMAT

The instrument consists of 25 pairs of drawings of children, one drawing indicating a positive self-concept and the other a negative self-concept. The subjects respond by marking an 'X' under the picture which they feel is most like themselves.

ADMINISTRATION

The instrument is designed for either individual or group administration, with individual testing preferred. Optimal sizes of test groups by age are suggested in the manual, where complete administration procedures are described. Approximate administration time is 10 to 15 minutes at the upper grades and slightly longer at lower grade levels.

SCORING

The scale is designed for hand scoring. An individual score is the sum of the positive responses. A scoring chart and instructions are provided in the manual.

DESCRIPTION

Development. The Martinek-Zaichkowsky Self-Concept Scale was developed after a review of the self concept literature revealed a need for a scale designed for young children that would not require reading ability or an understanding of English. The selection of items included in the initial item pool was derived mainly from Jersild's (1969) collection of statements relating to concerns children have about themselves. Also included were 25 items with high factor loadings from the Piers-Harris 80-item test. The selection of initial items was completed by the authors themselves as well as by a panel of experts in psychometrics and personality theory. In order to portray each item non-verbally, cartoon pictures were drawn. The pictures were drawn to represent bipolar situations, such as happy-sad. In an initial administration of the earliest version of the instrument, a group of 48 elementary school-age children were asked to derive the meaning of each picture from each of 75 pairs of drawings. On the basis of responses of this group, 43 items were retained. The 43 items were given to 148 elementary age children and item analysis was

250

used to determine which 25 of the items would be selected for the final instrument. Item analysis was conducted using the LERTAP 2.0 Item and Test Analysis Package (Nelson, 1974). Eighteen of the items selected for the final scale correlate highly with the Piers-Harris Self Concept Scale for Children (Piers, 1969) and the Coopersmith Self-Esteem Inventory (Coopersmith, 1967). Seven additional items were also selected because of their high sub-test correlations. These 25 items constitute the present scale.

Reliability. Hoyt Estimate of Reliability coefficients, used to measure internal reliability, range from .75 to .92 for grades 1 through 4 or .88 for all four grades, based on administration to 148 elementary school-age children.

Validity. In addition to the content validity implied by the method of construction of the scale, concurrent validity was established by administering the scale along with the Piers-Harris Self Concept Scale and the Coopersmith Self-Esteem Inventory. Pearson product moment correlation coefficients are .49 for the Piers-Harris scale and .56 for the Coopersmith instrument. In addition, to determine the internal structure of the scale, a factor analysis was performed, and five factors were identified which account for 47% of the variance: (1) satisfaction and happiness, (2) home and family relationships, (3) ability in games, recreation and sports, (4) personality traits and emotional tendencies, and (5) behavioral and social characteristics in school.

Norms. Normative data were obtained from samples of 1,171 first through eighth grade students representing a cross-section of demographic characteristics. Percentile scores and stanine scores are provided. Since there are only small grade and sex differences, the normative data are presented with all groups combined. The authors caution that the instrument is more sensitive to differences at the low end of the scale than at the high end, since the instrument was not constructed to discriminate among students with adequate or very positive self concepts.

Additional Information. In order to determine whether each item could be answered without sex bias, the initial 43 item scale was constructed with boy figures in 22 items and girl figures in 21 items. The responses of 47 female and 47 male children to the boy and girl items were analyzed by t test. The results showed no significant differences as a function of the sex of the figures in the cartoon drawings.

SAMPLE ITEMS

Examiner: Which child is most like you? If the child on the top is most like you, mark an "X" in the circle beneath the top picture. If the child on the bottom is most like you, mark an "X" beneath the bottom picture....

Self Concept and Self-Esteem

AVAILABILITY

The instrument is copyrighted. The instrument and manual may be purchased from:

Psychologists and Educators, Inc.
Suite 212
211 West State Street
Jacksonville, Illinois 62650

REFERENCES

Martinek, T. J. *A comparison of vertical and horizontal models of teaching on the development of specific motor skills and self-concept in elementary age children*. Unpublished doctoral dissertation, Boston University, 1976.

Martinek, T., Zaichkowsky, L., & Cheffers, J. Decision-making in elementary age children: Effects on motor skills and self-concept. *Research Quarterly*, 1977, *48*, 349-357.

Martinek, T., Cheffers, J., & Zaichkowsky, L. Physical activity, motor development and self-concept: Race and age differences. *Perceptual and Motor Skills*, 1978, *46*, 147-154.

Martinek, T., & Johnson, S. Teacher expectations: Effects on dyadic interactions and self-concept in elementary age children. *Research Quarterly*, 1979, *50*, in press.

McGee, R. Measuring affective behavior in physical education. *Journal of Physical Education and Recreation*, November-December 1977, 29-30.

Zaichkowsky, L. B., Zaichkowsky, L. D., & Martinek, T. J. Self-concept and attitudinal differences in elementary age school children after participation in a physical activity program. In J. Salmela (Ed.), *Mouvement*. October, 1975.

Zaichkowsky, L. D., Zaichkowsky, L. B., & Martinek, T. *Physical activity and child development*. St. Louis: C. V. Mosby, in press.

CROSS REFERENCES

Buros, O. K. (Ed.). *The Eighth Mental Measurements Yearbook*. Highland Park: The Gryphon Press, 1978.

Cheffers, J., & Evaul, T. *Introduction to physical education*. Englewood Cliffs, New Jersey: Prentice-Hall, 1978.

ETS Test Collection, Tests in Microfiche. Princeton, New Jersey: Educational Testing Service.

Willgoose, C. The curriculum in physical education. Englewood Cliffs, New Jersey: Prentice-Hall, 1979.

MYSELF CHECKLIST
(CUESTIONARIO PARA EVALUARME A MI MISMO)

AUTHOR

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Department of Education
California State University
Fresno, California 93710

DATE DEVELOPED

1974

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Self concept, self-esteem

TARGET POPULATION

The instrument is designed for use with elementary and junior high school students of both sexes. A Spanish edition is available for use with Spanish dominant or bilingual students.

INSTRUMENT FORMAT

The instrument consists of four sections and a total of 54 items. The first section contains 40 self-description items to which the subject responds by checking one of three columns in the test booklet: 'yes,' 'no,' or 'not sure.' The second section consists of 10 incomplete sentences. In the third section the subject is asked to list as many of his or her personal strengths and weaknesses as possible and then to indicate what others perceive his or her strengths and weaknesses to be. In the fourth section the subject is asked to indicate other concerns and comments. The Spanish edition is parallel in content and format to the English.

Self Concept and Self-Esteem

ADMINISTRATION

The instrument may be group administered, although individual administration is also appropriate. The examiner may read the items aloud if this is desired. Directions are printed on the instrument, and a Teacher/Counselor Instructions booklet is provided. When the Spanish language edition is used, examiners are encouraged to modify or substitute Spanish words and phrases suitable to the variation of Spanish spoken by the subjects.

SCORING

Complete directions for scoring and interpreting scores on Sections 1 and 2 are given in the Teacher/Counselor Instruction booklet. Sections 3 and 4 are not scored, but are to be jointly evaluated by the teacher or counselor and the subject.

DESCRIPTION

Development. This checklist was developed to measure perceptions of the social self, physical self, self-achievement, self-interests and personal concerns of elementary and junior high school children. Item content was determined on an *a priori* basis. Although data are not reported, the instrument has been administered to several thousand Spanish and English speaking students.

Validity. Content validity was examined by a panel of Spanish-speaking experts in bilingual education who reviewed the instrument's vocabulary, illustrations, item content, directions, and administrative procedures for cultural and linguistic appropriateness for Mexican-American elementary school children. This panel met at AIR in the spring of 1977 and participated in a three-day training session and working conference during which they reviewed this and other assessment instruments. Their comments and those of AIR staff who reviewed the instrument's technical aspects are included in *A Guide to Assessment Instruments for Limited-English Speaking Students* (see Cross References).

SAMPLE ITEMS

	Yes	No	Not sure
30. Most of my teachers care about me			
35. I am ashamed of myself			
40. Most of the time I enjoy helping others			

AVAILABILITY

The instrument and accompanying examiner's instructions may be purchased from:

Fearon Publishers, Inc.
6 Davis Drive
Belmont, California 94002

The instrument is copyrighted. The author would like copies of studies using the instrument.

CROSS REFERENCES

Pletcher, B. P., Locks, N. A., Reynolds, D. F., & Sisson, B. G. A guide to assessment instruments for limited-English-speaking students. New York: Santillana Publishing Company, 1978.

PERSONAL ATTRIBUTES QUESTIONNAIRE (PAQ)

AUTHORS

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Robert Helmreich
Joy Stapp
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University of Texas at Austin
Austin, Texas 78712

DATE DEVELOPED

1974; short form, 1978

INSTRUMENT TYPE

Personality inventory

MEASUREMENT VARIABLES

Self concepts of masculine and feminine personality attributes; sex role perception

TARGET POPULATION

The instrument is designed for use with high school and college students and other adults of both sexes.

INSTRUMENT FORMAT

Two forms of the Personal Attributes Questionnaire (PAQ) are available: the original 55-item questionnaire and a short 24-item questionnaire. In both versions, items are distributed among three scales:

Masculinity (M), Femininity (F), and Masculinity-Femininity (M-F). The M and F scales consist of descriptors that are considered socially desirable for both sexes but that are perceived as stereotypically more characteristic of males and females respectively. The M-F scale includes items for which social desirability judgments for the two sexes differ. Items are set up on a 5-point bipolar scale, the extremes having verbal labels (e.g., 'not at all independent' and 'very independent').

Subjects first are asked to rate themselves on each bipolar item. Then, they are given one pole of each item and asked to compare directly the typical male or female on a 5-point scale ranging from 'much more characteristic of the male' to 'much more characteristic of the female'.

ADMINISTRATION

The questionnaire is self-administering and may be used with groups or individuals. Approximately 30-45 minutes is needed to complete the long form, and about half that time for the short form.

SCORING

The questionnaire may be hand or machine scored.

Scores on each scale are obtained by summing the item scores. A "median split" method has been developed for showing the manner in which scale scores combine to determine a criterion variable. Each individual is classified as falling above or below the median of a normative group on the M and F scales, a 2 x 2 scheme that results in 4 groups: Androgynous (individuals above the median on both M and F), Masculine (above the median on M and below on F), Feminine (above the median on F and below on M), and Undifferentiated (below the median on F and M). An 8-way classification may be obtained by classifying each member of the 4 groups as above or below the median on the third, M-F, scale.

DESCRIPTION

The PAQ is a personality inventory that measures self-report of "masculine" instrumental and "feminine" expressive attributes. More specifically, the PAQ is designed to provide self ratings of subjects in terms of various attributes that have often been stereotyped as masculine or feminine. The PAQ has been used primarily with college students and adults for research purposes.

Development. The PAQ was derived from the item pool of the Sex Role Stereotype Questionnaire (SRSQ) developed by Rosenkrantz, Vogel, Bee, Broverman, and Broverman (1968). For 66 items of the SRSQ, significant sex-role stereotypes were found for both male and female subjects in their judgments of typical college students and adults. Fifty-five of these items were chosen arbitrarily for the PAQ. The PAQ was initially given to 248 male and 282 female introductory psychology students at the University of Texas, Austin, in the fall of 1973. Items were assigned to a scale on the basis of social desirability ratings (ratings of the ideal male and of the ideal female). M items were those in which the mean ratings of the ideal male and female fell toward the stereotypically masculine pole; F items were those for which the mean ratings of both sexes fell toward the stereotypically feminine pole; M-F items were those for which the mean ratings of the two sexes fell toward opposite poles.

On both long and short versions, correlations between the M and F scales are close to zero in both sexes. The correlations between M and M-F (scored in a "masculine" direction) are moderately high in a positive direction while correlations between F and M-F are lower but negative. Factor analyses of M and F scores obtained from several populations yield a two-factor structure and confirm assignment of items to scale. Correlations between factors are low.

Reliability. Alpha coefficients for the Self scales were .73 and .91. Cronbach alpha coefficients for the short form were .85, .82, and .78 for the 8-item M, F, and M-F scales, respectively. In a study of college students, correlations between the long and short forms were .93, .93, and .91 for the M, F, and M-F scales, respectively.

Validity. Research to date (Spence and Helmreich, 1978) has shown expected differences in distributions of PAQ scores in samples from different populations. For example, sex traditional distributions (high M and low F for males, the reverse for females) is most frequent, and the cross-sex distribution least frequent. Differences in distributions between male and female homosexuals, between homosexuals and unselected same-sex groups, and between female varsity athletes and unselected same-sex groups have also been shown.

According to the authors, the PAQ measures internally located dispositional tendencies of an instrumental and expressive nature that combine with situational and other personal variables to determine overt behavior. Concurrent validity studies are therefore difficult to design.

Additional Information. The JSAS document cited in the references presents the following information: number and percentage of items for which signficant differences occurred between mean ratings of typical adults, students, and self-ratings; results of six tests for individual items; mean self and stereotype ratings of sex for 55 PAQ items; selected percentiles and other statistics for men and women on each scale; correlations between PAQ scales for two different samples and between the PAQ and social desirability; and a distribution of scores on the M-F Self-scale.

The book by Spence and Helmreich presents the 24-item PAQ and several other self-report instruments. Normative data on the PAQ and relationships with other measures are presented for several samples, including high school students from different socioeconomic backgrounds, college students, parents of college studnets, and specially selected samples (e.g., scientists).

Alternative forms of the PAQ with simplified vocabularies are being devised for use with younger and verbally unsophisticated groups.

SAMPLE ITEMS

Self scale

For each scale, select the letter on the scale that best describes you and indicate it on the answer sheet in the same column as the item number.

3. Very independent A ... B ... C ... D ... E Not at all independent

18. Very rough A ... B ... C ... D ... E Very gentle

40. Never cries A ... B ... C ... D ... E Cries very easily

AVAILABILITY

Users must contact the authors for permission to use the instrument and inform the authors of their results. The authors grant permission only to individuals with appropriate professional credentials who are bound by the APA code of ethics or its equivalent or to students working under the supervision of such individuals.

The PAQ may be reproduced from Manuscript No. 617, Spence, Helmreich, and Stapp (1974) (see references), which is available from:

Journal Supplement Abstract Service
American Psychological Association
1200 - 17th Street, N.W.
Washington, D.C. 20036

The instrument is also available from the 1978 book cited in the references.

REFERENCES

Rosenkrantz, P. S., Vogel, S. R., Bee, H., Broverman, I. K., & Broverman, D. M. Sex-role stereotypes and self-concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32, 287-295.

Spence, J. T., Helmreich, R., & Stapp, J. The personal attributes questionnaire: A measure of sex role stereotypes and masculinity-femininity. Catalogue of Selected Documents in Psychology (JSAS), 1974, 4, 43.

Spence, J. T., & Helmreich, R. L. Masculinity and femininity: Their psychological dimensions, correlates, and antecedents. Austin: University of Texas Press, 1978.

PIERS-HARRIS CHILDREN'S SELF CONCEPT SCALE
("THE WAY I FEEL ABOUT MYSELF")

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Box 6184
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DATE DEVELOPED

1964, 1969

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self concept

TARGET POPULATION

The instrument is designed primarily for use with students in grades 3 to 10.

INSTRUMENT FORMAT

This scale is an 80-item 'yes-no' self report in booklet form. Cluster scores are available for six factors including behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction.

ADMINISTRATION

About 15 to 20 minutes are usually required to complete the scale. The manual includes detailed instruction for the administrator.

SCORING

The administrator may use a scoring key overlay to count the number of circled items and to obtain cluster scores. Computer scoring is also available from the publisher. For each respondent, total positive score and cluster scores are provided, as well as the group means and standard deviations for all scores. Although the manual includes norms, it recommends that test users develop their own local norms because of the limited norming population.

DESCRIPTION

Development. A preliminary pool of 164 items was pilot tested on a sample of 90 children from third-, fourth- and sixth-grade classes in a small school district. A 140-item scale was subsequently given to a sample of four third-grade classes (n = 119), four sixth-grade classes (n = 127), and four tenth-grade classes (n = 117) in a large Pennsylvania school system. The elementary school population represented a cross-section of socioeconomic levels in the community. In the high school, students from slow, average, and bright classes participated. Responses from the sixth-grade sample of 127 students were used for item analysis.

Piers prepared a monograph in 1977, citing the use of the scale in hundreds of school systems and clinics, as a major research instrument in theses and dissertations, and in ongoing research programs. The monograph contains extensive information on reliability and validity (supplementing that in the manual) and discusses foreign language versions of the scale (including Hindi, Mexican Spanish, Mikasuki, and Philippine). It contains 67 references for the scale and revised cluster subscores which are the ones represented on the current scoring key. The monograph is thus essential for the proper interpretation of the subscores.

The purpose of this scale is to provide information on children's self attitudes and correlates of those attitudes. It was designed primarily for research. The authors advise that any use of the instrument other than for research should be entered into cautiously and be subject to the limitations described in the manual. These limitations include a strong recommendation that the scale not be used for comparisons between children or other individual use, unless great care is paid to the standard error of measurement, and in the case of retesting, to the typically-found higher score on retest. In case of group retesting after some experimental program, a control group is essential. In a group setting, children with at least a third-grade reading level can complete the scale. It may be used on an individual basis with children below that reading level and younger children.

Reliability. The manual states that most of the reliability data come from the original standardization sample, which used the 95-item scale. Piers and Harris collected the data in 1964. To measure internal consistency, they used the Kuder-Richardson Formula 21, which produced coefficients ranging from .78 to .93. As a check they applied the Spearman-Brown odd-even formula (for half the grades 6 and 10 samples) with resulting coefficients of .90 and .87. Piers (1977) presents summary data on studies that confirm a general alpha coefficient of about .90 for the scale. She also notes a study that obtained a split-half reliability of .91 with American Indian children.

Piers and Harris retested 56 third graders, 66 sixth graders, and 60 tenth graders after four months and obtained reliability coefficients of .72, .71, and .72, respectively. The manual cites Wing (1966), who used the revised 80-item scale with an Oregon sample of 244 fifth graders. Both a two-month and four-month test-retest showed coefficients of .77.

Additional data in Piers (1977) confirm correlations of over .70 for test-retest over a five-month period and show correlations of .80 or over for shorter periods (three to four weeks).

Validity. The manual states that the authors attempted at the outset to build in content validity by defining the universe to be measured as the areas about which children reported qualities they liked or disliked about themselves (Jersild, 1952). Items were written to cover all areas. Although some items were dropped, the scale still covers all factors to varying degrees.

During standardization, the scale was administered to 88 adolescent institutionalized retarded females whose mean age was 16.8 years and mean I.Q. was 70. This was done to confirm predictions that certain groups would have significantly different self-concept scores. This group did score significantly lower than "normals" of the same chronological age or "normals" of the same mental age; however, another study supports the theory that the lower scores are more likely caused by institutionalization than by retardation.

Mayer's (1965) comparison scores on the Piers-Harris with scores on Lipsitt's Children's Self-Concept Scale produced a correlation of .68 on a sample of 98 special education students. Cox's (1966) comparison with big problems checked on the SRA Junior Inventory produced a correlation of -.64, and with health problems -.48 on a sample of 97 children in grades 6 to 9. Typical correlations of self-report with peer and teacher ratings ranged from non-significant to .49 in two studies involving 111 fourth graders and 113 sixth graders, and 97 students in grades 6 through 9.

Piers (1977) presents data on correlations of the scale with over a dozen other measures.

Norms. Normative data were provided by a sample of students in grades 4-12 in a small Pennsylvania public school district (N = 1,183: grade 4, n = 275; grade 6, n = 265; grade 8, n = 231; grade 10, n = 221; grade 12, n = 219). The manual presents means and standard deviations for that sample and also for a variety of other samples.

Additional Information. The manual reports that no consistent sex differences have been demonstrated on the Piers-Harris Scale and that, similarly, no consistent differences between grade levels can be expected. There is considerably more consistent evidence that variability of scores tends to decrease as grade level increases. Additional issues discussed are the development and correlates of self concept, and problems of self-report inventories such as item ambiguity, response constraints, faking, and social desirability.

Piers (1977) reports on studies in which the scale was used with Black, Hispanic, and American Indian children and with special educational groups.

SAMPLE ITEMS

8. My looks bother me. Yes No
15. I am strong. Yes No
31. In school I am a dreamer. Yes No
39. I like being the way I am. Yes No
52. I am cheerful. Yes No
60. I have a pleasant face. Yes No

AVAILABILITY

The instrument is copyrighted (1969) and may not be reproduced. The instrument and manual may be ordered from:

Counselor Recordings and Tests
Box 6184
Acklen Station
Nashville, Tennessee 37212

The authors would like copies of studies using the instrument.

REFERENCES

Cox, S. H. Family background effects on personality development and social acceptance. Unpublished doctoral dissertation, Texas Christian University, 1966.

Jersild, A. T. In search of self. New York: Teacher's College, Columbia University, Bureau of Publications, 1952.

Mayer, C. L. A study of the relationship of early special class placement and the self-concepts of mentally handicapped children. Unpublished doctoral dissertation, Syracuse University, 1965.

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CROSS REFERENCES

Buros, O. K. (Ed.). Seventh Mental Measurements Yearbook. Highland Park: Gryphon Press, 1972.

Hollifield, J. H. Research Clues. Today's Education, December 1978.

PRIMARY SELF-CONCEPT INVENTORY (PSCI)

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Self concept, self-esteem

TARGET POPULATION

The instrument was specifically designed for use with children of Hispanic descent in grades K through 6, and it is also suitable for use with Anglo-American, American Indian, and Black children. A Spanish version of the test is available for use with Spanish dominant children.

INSTRUMENT FORMAT

The instrument is composed of 18 scored illustrations, one practice and one research illustration. Each illustration depicts one or more children in a positive role and one or more children in a negative role. Items relate to six factors: physical size, emotional state, peer acceptance, helpfulness, success, and student self. There are separate response booklets for males and females. The examiner reads a short descriptive story about each illustration in the response booklet and asks the children to draw a circle around the person most like him or herself.

ADMINISTRATION

The instrument is designed for small group administration. Complete directions for administration are given in the test manual where instructions and items are printed in English and Spanish. Approximate administration time is 15 minutes.

SCORING

The instrument is designed to be hand scored. It yields a total score, three domain scores (Personal, Social-self, and Intellectual self), and six factor scores. Directions for scoring and interpretation of individual scores are provided in the manual.

DESCRIPTION

Development. The PSCI was designed to evaluate the effectiveness of educational programs intended to enhance self-esteem in low self concept children and also to identify children likely to have undesirably low self concepts. It is not intended to differentiate between adequate and very positive self concepts. A pilot version of the instrument was originally developed and administered to 703 children of Mexican/Spanish descent in the language best suited to the children in each group. On the basis of a factor analysis of the results, the Primary Self Concept Scale (PSCS), consisting of 14 items from the original version plus 10 new items, was developed and administered to three groups (ns = 372, 100 and 178) of primary school students, two of whom were retested after a week. Factor analysis was again performed and 15 items emerged as defining six identifiable factors. These 15 items comprise the Primary Self Concept Scale Revised (PSCS-R). The PSCI evolved from the PSCS-R and consists of these 15 items plus three additional items and two practice items. The six factors measured by the PSCI are: (I) Success; (II) Peer Acceptance; (III) Physical Size; (IV) Student Self; (V) Helpfulness; (VI) Emotional State.

Reliability. Reliability of the PSCI is based on the reliability of the PSCS-R. Test-retest Pearson product moment correlations range from .91 (n=372) to .57 (n=100).

Validity. Content validity of the PSCI is based on the content validity of the PSCS-R, which was established by submitting the instrument to evaluation by four specialists in testing and test construction. The comments of these reviewers, who affirmed the usefulness of the instrument, are published in the PSCI Technical Report. Construct validity based on the internal structure of the PSCI may be inferred from the 33 factor analyses performed on the instrument, in more than half of which the six factor and 15-item matrix emerged. Factor analysis of data provided by more than 2,000 students in grades K to 6 shows that all grades except K and 1 show a high degree of conformation to the hypothesized factor structure, indicating that caution should be exercised when interpreting factor and domain scores of children at or below first grade. Additionally, the instrument was presented to a panel of 11 judges, including doctoral students and faculty in the Department of Counseling and Educational Psychology at New Mexico State University, with instructions to sort the items into six categories. There was agreement among the panel as to the relationship of items and factors.

Norms. Percentile rankings of factor scores, domain scores and total scores, based upon the performances of more than 2,000 children of Anglo-American and Mexican-American cultural heritage in grades K to 6, are presented in the PSCI Technical Report. The Technical Report cautions that these data are to serve as an indicator of the characteristics of score distributions and should not be used as the basis for reporting or interpreting individual scores.

Additional Information. The PSCI is currently being revised. The revised form of the instrument has a better defined factor structure, higher reliability and a greater breadth of empirical data supporting validity. The new version of the PSCI is named the Self-Descriptive Inventory (SDI) and provides measures of self concept, self-esteem and self-ideal in four areas: physical maturity, peer relations, academic success and school adaptiveness. The SDI follows essentially the same format as the PSCI, but the figures have been revised to eliminate sexual or racial characteristics. The SDI has been used with children in grades one through nine. Younger students (first through third) answer in the test booklet, older students (fourth through ninth) on separate answer sheets. The SDI has been used with Anglo, Spanish-surnamed, Native American, Mexican and Chilean youngsters. It has also been used with educable mentally retarded and deaf children. This test is available from one of the authors:

Douglas Muller
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New Mexico State University
Las Cruces, New Mexico 88003

SAMPLE ITEMS

3. Turn to picture three with the square next to the number. One picture shows a boy or girl building a little block house. The other picture shows a boy or girl who is not able to build a block house. Draw a circle around the boy or girl you feel is most like you.

3. Volteen al dibujo tres con el cuadro al lado. Un dibujo enseña un niño o niña que no puede construir una casita de bloques. Hagan un círculo alrededor del niño o niña que piensan se parece más a ustedes mismos.

10. Turn to picture ten with the circle next to the number. The picture on this page shows some children playing tug-o-war. One of the children is larger than the other. Draw a circle around the child that you think is most like you.

10. Volteen al dibujo diez con el círculo al lado. El dibujo en esta página enseña unos niños jugando (con un mecate). Uno de los niños es más grande que el otro. Hagan un círculo alrededor del niño que piensan se parece más a ustedes.

19. Turn to picture nineteen with the square next to the number. Which boy or girl is most like you? The child who is riding piggyback on his friend, or the child who is giving the ride? Draw a circle around the boy or girl you feel is most like you.

19. Volteen al dibujo diecinueve con el cuadro al lado. Cuál niño o niña se parece más a tí? El niño que está arriba del amigo, or el niño que está cargando al otro? Hagan un círculo alrededor del niño o niña que se parece más a ustedes.

AVAILABILITY

The instrument is copyrighted. The Test Manual, Technical Report, and test booklets may be purchased from:

Teaching Resources
50 Pond Park Road
Hingham, Massachusetts 02043

The authors would like copies of studies using this instrument.

REFERENCES

(References for the PSCI)

Backer, J. C., Wooden, S., & Muller, D. The effects of individualized, success oriented instruction on achievement and self-concept of first graders. Perceptual and Motor Skills, 1977, 45, 721-722.

Gilman, G. B. The relationship between self-concept, intellectual ability, achievement, and manifest anxiety among select groups of Spanish-surname migrant students in New Mexico. Unpublished doctoral dissertation, University of New Mexico, 1969. (ED 029 723)

Lane, J., & Muller, D. The effect of altering self-descriptive behavior on self-concept and classroom behavior. Journal of Psychology, 1977, 97, 115-125.

Leonetti, R. A Primary Self-Concept Scale for Spanish surnamed children, grades K-4. Unpublished doctoral dissertation, New Mexico State University, 1973. (ED 071 813)

Lipton, C. Cultural heritage and the relationship to self-esteem. Journal of Educational Sociology, 1963, 36, 23-212.

Mintz, R., & Muller, D. Academic achievement as a function of specific and global measures of self-concept. Journal of Psychology, 1977, 97, 53-57.

Muller, D., & Leonetti, R. Self-concept of primary level Chicano and Anglo students. California Journal of Educational Research, 1974, 25, 57-60.

(References for the SDI)

Chambliss, J., Muller, D., Hulnick, R., & Wood, M. Relationships between self-concept, self-esteem, popularity and social judgements of junior high school students. Journal of Psychology, 1978, 98, 91-98.

Larned, D. T., & Muller, D. The development of self-concept in Mexican-American and Anglo students. Hispanic Journal of Behavioral Sciences, in press.

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Muller, D., Chambliss, J., & Wood, M. Relationships between area-specific measures of self-concept, self-esteem and academic achievement for junior high school students. Perceptual and Motor Skills, 1977, 45, 1117-1118.

CROSS REFERENCES

Pletcher, B. P., Locks, N. A., Reynolds, D. F., & Sisson, B. G. A guide to assessment instruments for limited-English-speaking students. New York: Santillana Publishing Company, 1978.

QUESTS, A LIFE-CHOICE INVENTORY

AUTHORS

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Omar D. Mumey
David N. Rodwell
Person-o-Metrics, Inc.
20504 Williamsburg Road
Dearborn Heights, Michigan 48127

DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes toward self, significant others, and institutions

TARGET POPULATIONS

This instrument is designed for use with secondary and postsecondary level students of both sexes.

INSTRUMENT FORMAT

The instrument is a Likert scale consisting of 90 statements. Responses are marked on separate answer sheets.

ADMINISTRATION

The inventory is designed for group administration. Directions are printed on the form. The items may be read by the subjects or read aloud to them by the examiner. Approximate administration time is 30 minutes.

SCORING

The authors recommend that QUESTS be used to evaluate programs rather than individuals. The instrument is designed to be machine scored. The publishers sell machine scorable response sheets and offer a scoring service which provides class lists giving scores on five factors and total scores. Group totals are also reported. There is a charge for the scoring service.

DESCRIPTION

Development. The QUESTS Inventory was originally developed to evaluate the impact of humanistic, substance abuse education programs. Items are evenly distributed across five major factors confirmed by factor analysis: Needs Recognition, Values Clarification, Adaptive Autonomy, Perception of Reality, and Self-Worth.

Reliability. Split-half reliability, based on the Spearman-Brown formula, is reported at .80 for the total scale score.

Validity. The items and theoretical structure of the instrument were reviewed by six practitioners in the field of substance abuse education. Validity is also suggested by the positive statistical correlations between the five factors, which suggests that the factors are measuring a common structure.

Norms. Norms are provided for the five factors separately and for total raw score. The norms are based on score distributions from a minimum of 400 Michigan high school students. Due to large cultural differences between populations, Person-o-Metrics, Inc. recommends the use of a pre-testing half and post-testing half or a participant-non-participant comparison to evaluate individual programs.

SAMPLE ITEMS

A = Strongly Agree
B = Agree
C = Uncertain
D = Disagree
E = Strongly Disagree

6. A creative housewife can hardly ever enjoy the same satisfaction as a career woman.

27. Talking with friends helps me decide what I want out of life even when I disagree with them.

46. I want to take some subjects in school that make me feel good.

79. Highschoolers who do not use alcohol are always left out socially.

89. When I have not gotten along with a teacher, I have usually been at least half at fault.

AVAILABILITY

The instrument is copyrighted and is available from Person-o-Metrics. Specimen sets, packets of 40 re-usable booklets, packages of 20 machine-scorable response sheets, and the Manual of Interpretation are sold separately.

REFERENCES

Milchus, N. J. Substance abuse prevention education: Evaluation report, jointly submitted to the Michigan Department of Education and the Office of Substance Abuse Services of the Michigan Public Health Department, 1974.

ROSENBERG SELF-ESTEEM SCALE (RSE)

AUTHOR

Morris Rosenberg
University of Maryland
Department of Sociology
College Park, Maryland 20742

DATE DEVELOPED

1965

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self-esteem

TARGET POPULATION

The Rosenberg Self-Esteem Scale (RSE) is designed for use with adolescents and adults.

INSTRUMENT FORMAT

The instrument consists of ten Guttman-scaled items in Likert format. Responses are recorded on a 4-point scale ranging from strongly agree to strongly disagree. Positively and negatively stated items are alternated to avoid response sets.

ADMINISTRATION

The instrument is designed for group or individual administration and requires approximately five minutes for completion. Directions for completing the scale are printed on the instrument.

SCORING

The instrument may be scored as a Guttman scale or as a Likert scale. Directions for scoring are included with the instrument.

DESCRIPTION

Development. A Guttman scaling procedure, in combination with the selection of items judged by the author to have face validity, was used in the development of the RSE. A coefficient of reproducibility of .92 is reported for the instrument, based on administration to 5,000 high school students, illustrating that the RSE meets the criterion for a unidimensional scale in that it is possible to predict with better than 90% accuracy the particular items endorsed by a respondent from knowledge of his or her score.

Reliability. One index of reliability is provided by the coefficient of reproducibility reported at .92. Test-retest reliability, based on administration to 28 college students with a two-week interval, is reported at .85.

Validity. The RSE has been correlated with other measures of self-esteem, including self-ideal discrepancy scores (r = .67), scores on the Heath Self-Image Questionnaire (r = .83), interviewer ratings of self-esteem (r = .56), providing evidence of convergent validity. A variety of studies have been conducted which show correlations between RSE scores and other variables with which self-esteem may be theoretically expected to relate, including depression, anxiety and psychosomatic symptoms, participation in extracurricular activities, and leadership. These may be considered evidence of the construct validity of the instrument.

SAMPLE ITEMS

Below is a list of statements dealing with your general feelings about yourself. If you *agree* with the statement, circle *A*. If you *strongly* agree, circle *SA*. If you *disagree*, circle *D*. If you *strongly* disagree, circle *SD*.

On the whole, I am satisfied with myself.	SA	A	D	SD
I am able to do things as well as most other people.	SA	A	D	SD
I certainly feel useless at times.	SA	A	D	SD

AVAILABILITY

The instrument may be reproduced from Rosenberg (1965), pages 17-18 or 305-307 (see references). The author would like copies of studies using the instrument.

REFERENCES

Crandall, R. The measurement of self-esteem and related constructs. In Robinson, J.P. and Shaver, P.R. (Eds.) *Measures of social psychological attitudes*. Revised edition. Ann Arbor: ISR, 1973.

Hammersmith, S. K., & Weinberg, M. Homosexual identity: Commitment, adjustment and significant others. *Sociometry*, *36*, 56-79.

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Rosenberg, M. *Society and the adolescent self-image*. Princeton: Princeton University Press, 1965.

Rosenberg, M. *Conceiving the self*. New York: Basic Books, 1979.

Silber, E., & Tippett, J. S. Self-esteem: Clinical assessment and measurement validation. *Psychological Reports*, 1965, *16*, 1017-1071.

Wells, L. E., & Marwell, G. *Self-esteem: Its conceptualization and measurement*. Beverly Hills: Sage Publications, 1976.

Wylie, R. *The self-concept: Revised edition. A review of methodological considerations and measuring instruments* (Vol. 1). Lincoln, Nebraska: University of Nebraska Press, 1974.

Wylie, R. The self-concept: Revised edition. Theory and research on selected topics (Vol. 2). Lincoln, Nebraska: University of Nebraska Press, 1978.

Zeller, R. A., & Carmines, E. G. Factor scaling, external consistency and the measurement of theoretical constructs. Political Methodology, 1976, 3, 215-252.

CROSS REFERENCES

Johnson, O. G. (Ed.). Tests and measurements in child development (Handbook II). San Francisco: Jossey-Bass, 1976, 727-728.

Robinson, J. P., & Shaver, P. R. (Eds.). Measures of social psychological attitudes. Revised edition. Ann Arbor: ISR, 1973.

Yamamoto, K. (Ed.). Mirror, mirror on the wall. Austin, Texas: Texan House, 1975.

THE SELF-CONCEPT AND MOTIVATION INVENTORY (SCAMIN)

AUTHORS

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DATE DEVELOPED

1967, updated 1977

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Self concept, academic motivation

TARGET POPULATION

The instrument was designed for use with boys and girls from preschool age (minimum age of 4 years) to high school.

INSTRUMENT FORMAT

Questions are presented in a modified Likert format. There are four scales for different age groups, including preschool/kindergarten, early elementary, later elementary, and secondary, with the scales increasing in length and complexity as age level increases. The preschool/kindergarten form asks children to indicate direction and strength of opinion by choosing between smiling, neutral and frowning faces, whereas the three older age groups make a more complex judgment involving a scale of five sad to happy faces. The preschool/kindergarten form and the early elementary form each contain 24 items. The later elementary form consists of 48 items and the secondary form consists of 64 items.

ADMINISTRATION

The Self-Concept and Motivation Inventory (SCAMIN) is designed for group administration. A manual of directions accompanies each form. Administration time is 25 minutes for the preschool/kindergarten and early elementary forms, 30 minutes for the later elementary form, and 40 minutes for the secondary form.

SCORING

The instrument can be machine or hand scored. The publisher offers a scoring service which includes profile analyses. The Manual of Interpretation accompanying the inventory describes the four scores yielded by the SCAMIN: Achievement Needs, Achievement Investment, Role Expectations, and Self Adequacy. The manual has additional information on enhancing children's self concepts and academic motivation.

DESCRIPTION

Development. In the construction of the SCAMIN, a large item pool was initially gathered from teachers enrolled in graduate classes. These items were separated into the categories of motivation and self concept and then further subdivided into the factors of achievement needs and achievement investment (motivation) and role expectations and self adequacy (self concept). These four factors have been confirmed by factor analyses of the early elementary form and the later elementary form. All SCAMIN forms have been content balanced to represent the four factors. Since its development, the largest use of the SCAMIN has been the pre-post evaluation of innovative and compensatory education programs in the United States and Canada. However, many dissertations and longitudinal studies have also been conducted with the SCAMIN.

Reliability. Internal reliability (Spearman-Brown) of the preschool/kindergarten form is reported at .79, at .77 for the early elementary form, at .83 for the later elementary form and at .93 for the secondary form.

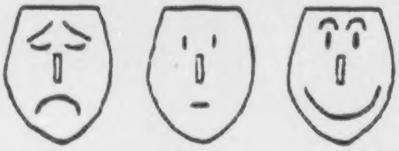
Validity. Several validity studies are reported in a memorandum from the publisher. Early field tests with the SCAMIN are described as supportive of teacher ratings, especially when the teachers read the factor definitions from the Manual of Interpretation before rating their students. Additional evidence of concurrent validity is provided by significant correlations with other self concept measures and with measures of racial pride. Some evidence of predictive validity is indicated by the finding that SCAMIN scores predicted the success of elementary school students in computer assisted instruction and in first grade reading.

Norms. Each SCAMIN form was normed on approximately 1,000 students. Students were drawn from ghetto, urban and suburban areas where there was no unusual programming directed toward motivation or self concept. The norms are more heavily weighted toward urban minorities than the population as a whole. Norm sites were in Southeastern Michigan and the Los Angeles area where there were sizable numbers of Mexican-Americans. Racial differences are small with a tendency for lower socio-economic racial minorities to be slightly higher in Self-Adequacy and lower in Achievement Investment.

SAMPLE ITEMS

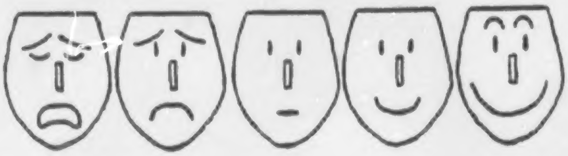
Preschool Form

6. What face would you wear if you forgot your story or song in front of the whole class?



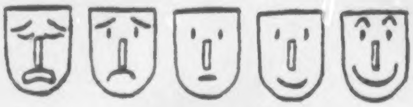
Early Elementary Form

9. What face would you wear when you think of going to school to learn of new ideas?



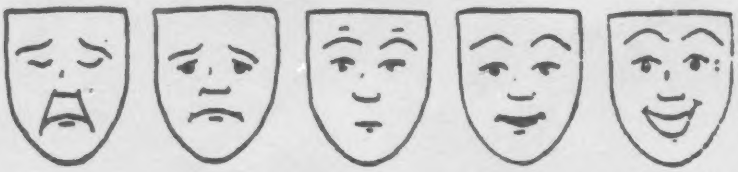
Later Elementary Form

43. What face would you wear when you bring home your report card?



Secondary Form

26. What face would you wear if your school newspaper needed a reporter for a topic on which you were interested but not too well informed?



AVAILABILITY

The inventory forms, Manual of Direction, Manual of Interpretation, response sheets, specimen sets, scoring services, and other information may be purchased through Person-O-Metrics, Inc. Price lists are also available. The instrument is copyrighted.

REFERENCES

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Drummond, R. J., & McIntire, W. Evaluating the Factor Structure of "Self-Concept" in Children: A cautionary note. *Measurement and Evaluation in Guidance*, 1977, *9*(4), 172-176.

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Norman, L. K. An assessment of cognitive and affective changes in elementary school students participating in a career education program. Unpublished doctoral dissertation, University of Houston, 1975.

Sharp, M., Cervantes, R. A., & Jones, E. A multi-dimensional pilot study of self-concept. Washington, D.C.: National Institute of Education, December 1975.

SELF-ESTEEM QUESTIONNAIRE (SEQ-3)

AUTHOR

James K. Hoffmeister
Test Analysis and Development Corporation (TADC)
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Boulder, Colorado 80301

DATE DEVELOPED

1971

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self-esteem

TARGET POPULATION

The instrument is designed for use with persons of both sexes from elementary school age through adults.

INSTRUMENT FORMAT

The Self-Esteem Questionnaire, Form SEQ-3 (SEQ-3) consists of 21 Likert-type items. The respondent marks each statement pertaining to self-perception on a 5-point scale of agreement ranging from 'Not At All' to 'Yes, Very Much'. The questionnaire is printed on a form that can be read by an optical scanning machine.

ADMINISTRATION

The questionnaire can be administered to groups or individuals. Depending on age of respondent, the time required is about 15 minutes. Respondents are asked not to respond to any statement they do not understand. Administration directions are given with the questionnaire and in the manual.

SCORING

A special computerized scoring process called Convergence Analysis is used to score the SEQ-3. This process is designed to scan a person's responses to determine whether they meet a minimum validity requirement of response consistency. The SEQ-3 is scored by TADC. Computer programs for scoring are available. Additional scoring information is given in the manual.

DESCRIPTION

Development. The first step in developing the measure was to define self-esteem as precisely as possible. Relevant items were then drafted and submitted to samples of respondents (fourth grade students to adults) for review. Respondents were told the intent of the measure and asked to suggest additional items and revisions for the proposed items. Subsequently, items were subjected to the cluster analytic procedures developed by Robert C. Tryon and Daniel E. Bailey. To be included in the final measure, all items had to have oblique factor coefficients of at least .50.

The SEQ-3 provides information on two variables of a person's self-report in the area of self-esteem, including self-esteem (SE)--an individual's feelings of worth, success, and competence--and self-other satisfaction (SOS)--an individual's level of satisfaction with regard to those feelings. The measure is designed for use with a wide variety of age levels and is intended for use in individual counseling as well as program evaluation. The SEQ-3 is one of several measures developed at TADC. Another of TADC's measures, the Work Atmosphere Questionnaire, is also in this package.

Reliability. On a final set of 21 questions administered to about 300 students in grades 4 through 6, 260 students in junior high school, 100 high school students, and 800 Air Force cadets and other adults, the developers obtained Cronbach alpha coefficients ranging from .80 to .95 on SE and .85 to .96 on SOS.

The developers tested about 250 students in 4th through 6th grade in a suburban Denver school on two occasions about two weeks apart. The Pearson product moment correlations were about .70 for both SE and SOS.

Validity. Evidence of content validity derives from the item review and cluster analysis process to which the measure was subjected during its development. About 225 students in fifth grade in elementary school took both the SEQ-3 and the short form of Coopersmith's measure of self-esteem. The correlation between the two measures was .61. The correlations between SOS and Coopersmith's total score was .40.

Efforts to correlate the SEQ-3 with other criterion measures have yielded the following: no relationships with IQ as measured by the Lorge-Thorndike or Otis-Lennon; low correlation with achievement as measured by the ITBS, SAT, MAT, or teacher grades; and only a moderate relationship to parent or staff ratings of students' self-esteem (r = c.30).

Additional Information. Typical scores for various samples are given in the manual. Descriptive information is provided for several other related questionnaires measuring classroom, school, and work atmosphere.

SAMPLE ITEMS

1 = Not at all
2 = Only a little
3 = Depends or Not Sure
4 = Pretty much
5 = Yes, very much

1. I feel sure of myself.

8. I'm usually a lot of fun to be with.

12. I'm satisfied with the way I handle most situations.

15. Most people my age seem to be able to do things easier than I.

16. Does the situation described in Number 15 upset you?

AVAILABILITY

The instrument is copyrighted and may be purchased from Test Analysis and Development Corporation. The computer programs for scoring are also available from TADC. The author requests copies of studies using the instrument.

REFERENCES

Hoffmeister, J. K. Some information regarding the characteristics of two measures derived from the Self-Esteem Questionnaire (SEQ-3). Boulder, Colorado: Test Analysis and Development Corporation, 1976.

THE TENNESSEE SELF CONCEPT SCALE (TSCS)

AUTHOR

William H. Fitts
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Nashville, Tennessee 37215

DATE DEVELOPED

1956, revised 1964

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self concept

TARGET POPULATION

The instrument is designed for use with individuals from age 12 through adult.

INSTRUMENT FORMAT

The Tennessee Self Concept Scale (TSCS) consists of 100 items to be rated on a 5-point scale from 'completely false' to 'completely true.' Two forms are available: the Counseling Form and the Clinical and Research Form. Both use the same test booklet and items, but have different scoring scales. The Counseling Form contains five scales: A Self-Criticism score (10 items); a Positive score (90 items), including subscales on Identity, Self-Satisfaction, Behavior, Physical Self, Moral-Ethical Self, Personal Self, Family Self, and Social Self; a Variability score; a Distribution score; and a Time score (measure of time the subject requires to complete the scale).

The Clinical and Research Form includes all scores from the Counseling Form as well as a True-False Ratio; a Net Conflict Score (directional); Total Conflict Score (summation); Empirical Scales, including a Defensive Positive Scale (29 items), General Maladjustment Scale (24 items), Psychosis Scale (23 items), Personality Disorder Scale (27 items), Neurosis Scale (27 items), Personality Integration Scale (25 items); and a Number of Deviant Signs Score.

ADMINISTRATION

The TSCS is designed for self-administration. Group or individual administration is possible. The administrator must note the possible confusion in marking answer sheets for the hand-scored versions (each page in the booklet has odd- or even-numbered items). The scale is generally completed in 10 to 20 minutes.

Persons using the Counseling Form should have a guidance certificate or master's degree in guidance and counseling or psychology. Persons using the Clinical and Research Form for clinical assessment should have substantial training and supervised experience in the clinical use of tests.

SCORING

Both forms can be hand scored or machine scored by the publisher if five or more copies are submitted. The computer-scored form is a self-contained booklet, while the hand-scored form includes a test booklet and separate answer sheet that has a carbon and scoring form attached. Hand scoring directions are included in the manual. Hand scoring requires 6 to 7 minutes for the Counseling Form, about 20 minutes for the Clinical and Research Form.

Scoring produces a profile based on the scales for whichever form is used. The appropriate profile sheet should be specified when ordering. The computer output provides a profile of 29 variables, group means and standard deviations for each variable and punched IBM output for further statistical work.

DESCRIPTION

Development. The original item pool was derived from other self concept measures and written self-descriptions of patients and non-patients. Seven clinical psychologists acted as judges for item classification and selection. The scale was standardized on a sample of 626 persons, half of them male and half female, ranging in age from 12 to 68, representing all socioeconomic, intellectual, and educational levels (grade 6 to Ph.D.), including both blacks and whites. The norm group does not reflect the population as a whole in its composition; overrepresented in number are college students, white subjects, and persons aged 12 to 30 years.

The TSCS is designed to provide a multi-dimensional description of the self concept of subjects aged 12 or older having at least a sixth grade reading ability. The scale is applicable to the whole range of psychological adjustment from healthy, well-adjusted people to psychotic patients and can be used for both counseling and research purposes.

Reliability. Sixty college students were tested and retested after two weeks. Reliability coefficients for the scales and subscales ranged from .60 to .92. In the manual the author reports on other studies showing reliability over time.

Validity. Validity is based on developmental procedures wherein items were derived from similar measures and from written self-descriptions and subjected to examination by a panel of experts.

The TSCS was given to 369 psychiatric patients and 626 non-patients. Statistical analyses demonstrate highly significant differences between patients and non-patients for almost every score. The manual reports on other studies that also demonstrate this difference.

A cross-validation sample included 100 students from Ohio State University and subjects from three patient groups--an Ohio State hospital group (n = 125), a community mental health group (n = 459), and a VA psychiatric hospital group (n = 100). Numerous figures and tables show differing scores for the various groups, and provide additional validation evidence. In addition, test-retest scores of patients in therapy show predicted improvement as patients improve.

The manual presents abundant data on the correlations between the TSCS and the MMPI, the Edwards Personal Preference Scale, and 10 other personality measures.

Additional Information. The manual also presents intercorrelations of the scales, norms and standard deviations for the scales, and extensive references. A bibliography of over 1,200 annotations is being prepared by the publisher. A series of six research monographs, summarizing TSCS research on various topics, is available from the publisher.

SAMPLE ITEMS

1 = Completely false
2 = Mostly false
3 = Partly false and partly true
4 = Mostly true
5 = Completely true

3. I am an attractive person.

24. I am a morally weak person.

55. I have a family that would always help me in any kind of trouble.

81. I try to please others, but I don't overdo it.

96. I gossip a little at times.

AVAILABILITY

The instrument and accompanying manual, which are copyrighted, may be purchased from:

Counselor Recordings and Tests
Box 6184
Acklen Station
Nashville, Tennessee 37212

The author would like copies of studies using the instrument.

REFERENCES

Fitts, W. H. Manual for the Tennessee Self-concept Scale. Nashville: Counselor Recordings and Tests, 1965.

Fitts, W. H., & Hamner, W. T. *The self concept and delinquency*. Nashville: Counselor Recordings and Tests, 1969.

Fitts, W. H., Adams, J. L., Radford, G., Richard, W. C., Thomas, M. M., Thomas, B. K., & Thompson, W. *The self concept and self actualization*. Nashville: Counselor Recordings and Tests, 1971.

Fitts, W. H. *The self concept and psychopathology*. Nashville: Counselor Recordings and Tests, 1972(a).

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YOUNG CHILDREN'S SELF-CONCEPT SCALE

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DATE DEVELOPED

1973

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Self concept

TARGET POPULATION

The scale is designed for use with children in grades 1 through 4, or aged 6 through 10 years.

INSTRUMENT FORMAT

The instrument consists of 40 statements in true/false format. Answers are marked on separate answer sheets which have picture symbols (bird, cup, etc.) for non-readers.

ADMINISTRATION

The instrument is designed for group administration and is to be read aloud by the examiner to the subjects, who respond by circling 'yes' or 'no' on their answer sheets. A script for the test administrator is provided.

SCORING

The instrument is hand scored. A scoring key is provided. Subscale scores may be obtained for three scales: Feeling Self, School Self, and Behaving Self. Subscale scores are not as reliable as the total scores.

DESCRIPTION

Development. The Young Children's Self-Concept Scale represents an effort to develop a self concept scale for young children in grades 1 to 4. It is a downward revision of the Piers-Harris Self Concept Scale (1969) which was originally intended for children with a minimum third-grade reading level. The instrument has been standardized on more than 2,000 children from seven geographical areas. It has also been used as a dependent variable in studies of teaching behavior (McDaniel, 1976) and in studies of the effects of parental attitudes on self concept (McDaniel, Ball, & Fortunata, 1978). The factor structure of the instrument has been examined for maturational and sex effects, based on administration to 459 children in grades 1 to 4. Separate factor analyses were conducted for first- and second-grade pupils combined, third-and fourth-grade pupils combined, girls across all grades and boys across all grades. These analyses were consistent in yielding three similar factors at both maturational levels and for both sexes, described as body image, behaviors and feelings. Individual items have also been examined by chi square to detect differences in patterns of responses by sex. Seven of the 40 items tested contain sex differences.

Reliability. Internal reliability, using the KR-20 formula, is reported as .83 for the first grade, .83 for the second grade, .87 for the third grade and .87 for the fourth grade.

Validity. In one study of concurrent validity conducted with disadvantaged, inner city children, the instrument correlated .23 with reading achievement and .42 with mathematics achievement on a sample of 137 first-grade students. A second study was conducted with 459 predominantly white middle class children in grades 1 to 4 to test the predictive validity of the instrument against a criterion of teacher ratings of children's self concepts and to determine whether the factor structure varied with maturational level and with sex. The resulting correlations of teacher ratings and self concept scores, which ranged from -.01 to .58 for teachers in 21 classes across the four grades, were interpreted as not providing evidence for or against validity, since half were significant and half were not. However, the finding of consistent factor structure between sexes and across the first four years of school may be regarded as a form of construct validity of the instrument.

SAMPLE ITEMS

(From Script for Test Administrators)

1.	Bird	I am often sad
6.	Bug	I am strong
14.	Star	I have pretty eyes
23.	Boot	My classmates like the things I think up
32.	Book	My parents think I should do better than I do
36.	Cup	I am smart

AVAILABILITY

The instrument is copyrighted and may be purchased from:

Counselor Recordings and Tests
Box 6184 Acklen Station
Nashville, Tennessee 37212

The author would like copies of studies using the instrument.

REFERENCES

Denner, P. R. The relationship of self concept factors to peer evaluation factors and factors of attitude toward school for second and fifth grade elementary school children. Unpublished Master's Thesis, Purdue University, 1975.

McDaniel, E. D., Ames, C. A., Anderson, J. G., Cicerelli, V., Feldhusen, J. F., Felsenthal, H. M., Kane, R. B., Lohmann, J. J., Moe, A. J., & Wheatley, G. H. Longitudinal study of elementary school effects: Design, instruments, and specifications for a field test. Final Report, OEC-0-725283, Purdue Educational Research Center, Purdue University, West Lafayette, Indiana, 1973.

McDaniel, E. D. Some relationships among teacher observation data and measures of self concept attitudes toward school. Paper presented at the annual convention of the American Psychological Association, Washington, 1976.

Self Concept and Self-Esteem

McDaniel, E. D., Ball, L., & Fortunato, B. *A longitudinal study of the effects of parental attitudes on the development of self-concept and attitude toward school*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, 1978.

McDaniel, E. D., & Leddick, G. R. *Elementary children's self concepts, factor structures and teacher ratings*. Paper presented at the annual meeting of the American Psychological Association, Toronto, 1978.

Sex Role Perception

ATTITUDE TOWARD SEX ROLE DIFFERENTIATION IN PHYSICAL EDUCATION (SRD/PE) ATTITUDE INVENTORY

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DATE DEVELOPED

1978 (currently under development)

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with preservice or inservice physical education teachers at the secondary school level.

INSTRUMENT FORMAT

The inventory consists of 42 Likert-type statements. The 5-point scale extends from 'strongly agree' to 'strongly disagree'. Twenty-one of the statements are associated with traditional attitudes held toward sex role differentiation in physical education and the remaining 21 statements are associated with change oriented attitudes.

ADMINISTRATION

The instrument is designed for group administration and directions are printed on the form. Approximate administration time is 20 minutes.

Sex Role Perception

SCORING

The inventory is most efficiently scored by computer, but instructions are available for handscoring. Negatively oriented statements must be recoded and responses summed to obtain subscores for traditionally oriented statements and for change oriented statements. Subscores are summed to obtain the total attitude score. High scores represent more liberal attitudes toward sex-role differentiation, low scores represent more conservative attitudes.

DESCRIPTION

Development. The SRD/PE Attitude Inventory was developed as part of a validation plan to determine the effectiveness of instructional modules designed to help teachers reduce sex bias in physical education. The original 58-item inventory was based on a review of the literature, interviews with teachers, graduate teaching assistants and physical education supervisors. The original set of items was pilot-tested using first a group of 64 physical education teachers. Later, a selected set of 44 items was evaluated using 119 teachers. The current inventory consists of 42 items. Items which discriminated between a liberal group of teachers (top 25% on the inventory) and a conservative group of teachers (lower 25% on the inventory) were selected for inclusion.

Reliability and Validity. The alpha coefficient for the 42-statement inventory (n = 119) was .87. Preliminary indications are that scores of teachers who are more liberal are significantly different from scores of teachers who are more conservative. Subjects differ significantly in attitude scores when evaluated by sex, with women falling toward the liberal end of the scale.

Additional Information. At the time of this writing, further reliability and validity studies were in process.

SAMPLE ITEMS

1=Strongly agree
2=Agree
3=Neutral
4=Disagree
5=Strongly disagree

5. Instructional materials that depict boys in vigorous, active sports and girls in passive activities or as spectators should be discarded.

16. Girls are not as serious about achieving in physical education, therefore, more attention should be given to providing opportunities for boys.

23. Opportunities need to be provided for girls to see women who are skillful, serious athletes.

38. **Boys rather than girls should be expected to take the leadership roles in physical education class.**

AVAILABILITY

A copy of the inventory is available at duplicating cost plus postage from the author.

REFERENCES

Silver, P., Podemski, R. S., & Engin, A. W. Attitude toward role differentiation in education: Implications for Title IX implementation. Journal of Research and Development in Education, 1977, 10, 26-35.

ATTITUDES TOWARD FEMINIST ISSUES SCALE (ATFI)

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DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The scale is designed for use with adults of both sexes.

INSTRUMENT FORMAT

The Attitudes Toward Feminist Issues Scale (ATFI) consists of 120 statements in Likert format. The items are grouped into subscales addressing nine issues: human reproduction, child care, politics and legislation, employment, overcoming self-denigration, marriage and family, consciousness raising in media, religion, and education.

ADMINISTRATION

The scale is designed for group administration. Directions are printed on the instrument. Approximate administration time is 30 minutes.

SCORING

The instrument may be hand scored or machine scored using an item analysis program for attitudes scales. The five scale designations from 'strongly agree' to 'strongly disagree' are given weights of from 1 to 5, respectively. The total score and subscale scores are calculated by adding the appropriate weight for the items in the subscales or total scale. A low numeric scale value indicates a liberal feminist position, while a high numeric value indicates a conservative feminist position.

DESCRIPTION

Development. The 120 statements comprising the ATFI were paraphrased from resolutions of the 1970 national convention platform of the National Organization for Women (NOW). The results of an image factor analysis of the intercorrelations among subscale scores indicate that the AFTI is a one-factor, unidimensional scale.

Reliability. Test-retest reliability for the subscales and total score is reported at .70 (n=105), after a three month interval, for all subscales except child care and education.

Validity. Construct validity is claimed on the basis of the high internal consistency of the subscales. In addition, evidence of criterion validity is provided by the results of a series of analyses of variance in which sex, course type, and pre-post administration were the independent variables and scores on the subscales of the ATFI were the dependent variables. More specifically, selected subscales discriminated between students in introductory psychology and women's studies in both precourse and postcourse administrations. The women's studies students responded in the more liberal direction. In addition, students enrolled in the women's studies course responded with a significantly more liberal feminist position in the postcourse administration of selected subscales than they did initially.

Additional Information Research is in progress to develop a shortened version of the ATFI.

SAMPLE ITEMS

A=Strongly agree
B=Agree
C=Neither agree nor disagree
D=Disagree
E=Strongly disagree

1. Limiting one's own reproduction is a basic human right.

12. Sex discrimination should be forbidden in employment.

28. The minimum wage act should cover all female employees.

44. All women should recognize their sisterhood with other women.

AVAILABILITY

The instrument is available at duplicating cost plus postage from the second author, Dr. Patricia B. Elmore. This author would like copies of studies using the instrument.

REFERENCES

Britton, V. & Elmore, P. B. Leadership and self-development workshop for women: A research report. Paper presented to a meeting of the American Personnel and Guidance Association, Chicago, April 1976.

Britton, V., & Elmore, P. B. Leadership and self-development for women. Journal of College Student Personnel, 1977, 18, 318.

Britton, V., & Elmore, P. B. Leadership and self-development workshop for women: A research report. NASPA Journal, 1979, in press.

Brodsky. A., Elmore, P. B., & Naffziger, N. Development of the attitudes toward feminist issues scale. Measurement and Evaluation in Guidance, 1976, 9(3) 140-145.

Elmore, P. B. The Attitudes Toward Feminist Issues Scale: A validation study. Paper presented to a meeting of the American Personnel and Guidance Association, New York City, March 1975.

ATTITUDES TOWARD INCREASED PARTICIPATION BY WOMEN QUESTIONNAIRE

AUTHORS

Sally Storrs
Selma Greenberg
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Hofstra University
Hempstead, New York 11550

DATE DEVELOPED

1971

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with male and female students in grades 4 through 10.

INSTRUMENT FORMAT

The instrument consists of 20 questions in agree/disagree format.

ADMINISTRATION

The questionnaire is designed for group administration. Directions are not provided, but it appears that subjects read the questions and circle either a 'yes' or 'no' answer to each. Approximate administration time is 10 minutes.

SCORING

The questionnaire may be hand scored. Items 1 through 19 are used to calculate an 'egalitarian score'. Scoring directions are described in Greenberg (1976).

DESCRIPTION

Development. The instrument was originally developed as a graduate course assignment. It was pilot tested in a sixth-grade class and in an additional sample of 100 students and showed systematic and significant differences between boys and girls in sex role perception. A large scale study involving 1,600 students was subsequently conducted, using the questionnaire as the investigative instrument.

Validity. Evidence of predictive validity is provided in part by the results of studies based on the administration of the instrument to 800 boys and 800 girls in grades 4 through 10. The major finding of a three-way analysis of variance in which age, sex and socio-economic level were the independent variables was a main effect of sex, showing that females had significantly more egalitarian attitudes than males. In a subsequent study involving a sample of four sixth-grade classes, the instrument was used to examine the effects of having an employed mother. Girls with employed mothers emerged as most egalitarian in attitudes, followed by girls with nonworking mothers, boys with working mothers, and boys with nonworking mothers. These studies may be regarded as evidence of predictive validity as measured by the capacity of the instrument to detect significant differences between groups.

SAMPLE ITEMS

1. Do you think that it's fair for a woman to have the same chance as a man (equal opportunity) to apply for and work at any job she wants if she is qualified?

   Yes No

6. Would a trained female garage mechanic be as good as a man if your car needed fixing?

   Yes No

14. Would you mind working for a woman boss?

    Yes No

AVAILABILITY

The instrument is available at duplicating cost plus postage from the second author, Dr. Selma Greenberg. The items may also be reproduced from Pottker and Fishel (1976), cited in the references.

Dr. Greenberg would like copies of studies using the instrument.

REFERENCES

Greenberg, S. Attitudes toward increased social, economic, and political participation by women as reported by elementary and secondary students. In J. Pottker & A. Fishel, *Sex bias in the schools: The research evidence*. Cranbury, New Jersey: Fairleigh Dickenson University Press, 1976.

ATTITUDES TOWARD SEX ROLE DIFFERENTIATION IN EDUCATION (A/SRDE)

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Paula F. Silver
University of Tulsa
600 S. College Avenue
Tulsa, Oklahoma 74104

Richard S. Podemski
University of Arkansas
Fayetteville, Arkansas 72701

DATE

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for use with educators at all levels.

INSTRUMENT FORMAT

The Attitudes Toward Sex Role Differentiation in Education (A/SRDE) is a Likert scale containing 45 items. Answers are marked on a separate answer sheet.

ADMINISTRATION

The questionnaire may be administered to groups or individuals. Directions are printed on the form. Administration time is approximately 20 to 30 minutes.

SCORING

The authors can provide directions for hand scoring, or modifications can be made for optical scanning. Arrangements for scoring at the University of Tulsa can be made.

DESCRIPTION

Development. The A/SRDE was developed to assess educators' attitudes toward the roles of males and females and is a modification of the Attitudes Toward Sex Role Differentiation (A/SRD) questionnaire developed by Engin, Podemski and Silver. In essence, the earlier instrument served to provide an initial pool of relevant questionnaire items for the A/SRDE. In the development of the revised instrument, 50 items were presented to a sample of 90 female and male educators who were asked to judge the degree to which each item represented a liberal or conservative attitude toward sex role differentiation. As a result of this pilot study, five items were rejected from the final instrument. The A/SRDE has been used in a study of 862 professional staff members drawn from 15 public high schools in four major cities in the midwest, including 30 administrators, 703 teachers, 119 other professional staff (guidance counselors, psychologists, etc.) and 10 others. The sample consisted of 377 females, 456 males and 29 who did not indicate their sex. A factor analysis of the data provided by this sample yielded six factors accounting for 49% of the total variance. Based upon a study of the items with .40 or greater loadings on each factor, the factors are described as: (1) General Conservatism/Liberalism; (2) Professional Opportunities; (3) Sex Segregation; (4) Political Action; (5) Language Usage; and (6) Social Etiquette.

Reliability. Odd-even reliability for the A/SRDE was computed to be greater than .90 when corrected by the Spearman-Brown prophecy formula. In addition, each of the 45 items was substantially correlated with the total scores (r = .30 to .69) indicating that each item contributed to measuring the larger construct.

Validity. Some evidence of the predictive validity of the instrument is provided by the results of one study in which it was used. This study of educators yielded a variety of significant findings, among them the findings that every factor was significantly related to at least one demographic variable and that each demographic variable had an effect on at least one factor.

Another study revealed that scales and total scores of the A/SRDE differentiated between women active in church groups and those active in women's movement groups. The A/SRDE also correlated significantly and in predicted directions with social behavior patterns of women.

Additional Information. At the time of this writing, a series of studies was underway for further validation of the instrument.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Neither agree nor disagree
4 = Disagree
5 = Strongly disagree

12. There should be a greater number of female athletes in spectator sports.

23. "Real men" were not sissies as boys.

29. Women have a much easier life than men.

34. Television shows and commercials should be changed to represent more active, intelligent women in leadership positions.

39. College education is less important for girls than for boys.

43. People should boycott business enterprises in which employment sex discrimination is practiced.

AVAILABILITY

The instrument is copyrighted and is available at duplicating cost plus postage from the third author, Dr. Paula F. Silver.

REFERENCES

Silver, P. Podemski, R. S., & Engin, A. W. Attitudes toward sex role differentiation in education: Implications for Title IX implementation. Journal of Research and Development in Education, 1977, 10(2), 26-35.

Silver, P., & Davis, W. Attitudes regarding sex equity. Planning and Changing, 1979 (Winter), 236-243.

CROSS REFERENCES

Silver, P. F. (Ed.). Handbook of assessment tools for enhancing educational equity. Columbus, Ohio: University Council for Educational Administration, 1978, 14-26.

ATTITUDES TOWARD SEX ROLES SCALE

AUTHOR

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San Diego, California 92182

DATE DEVELOPED

1968; revised 1977

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for use with high school and college students and adults of both sexes.

INSTRUMENT FORMAT

The scale is a Likert-type instrument, consisting of 35 statements to which respondents may agree or disagree at three levels of intensity (from 'very strongly agree' to 'very strongly disagree'). No neutral response is provided. A Spanish version of the scale is included in the instrument package.

ADMINISTRATION

The scale is designed for group administration. Approximately thirty minutes is required to complete the scale. Administration directions precede the statements on the scale.

SCORING

The scale is hand scored. A scoring key, including interpretation of scores, comes with the instrument.

DESCRIPTION

Development. The scale was developed to test the hypothesis that men's views of appropriate feminine behavior play a significant although often unrecognized part in the processes underlying women's career development, which make that development different from men's. The pilot study sample consisted of 33 women. Responses of the pilot sample to an 80-item scale were subjected to a principal-axis analysis; five of the six factors derived had sufficient item loading to be interpretable. Only items loading on two factors at .45 or above were used in the final 35-item instrument. Five subscales (constructs)--Woman as Partner, as Ingenue, as Homemaker, as Competitor, and as Knower--were formed, with seven items comprising each subscale. Additional studies, however, indicate more variability in factors than the initial study.

In its present form, the scale measures responses to commonly held notions of sex role behavior along a continuum ranging from dichotomous to androgynous. This scale is based on the assumption that some individuals dichotomize attitudes and behaviors believed to be appropriately male or female and that other persons tend to ignore sex role expectations and see attitudes and behaviors as appropriate to both sexes, that is, they hold androgynous world views. It has been used with adult men and women and most recently with young women in high school and their counselors. For this study the instrument was translated into Spanish. In the high school setting, the scale was used to measure the ways in which the students and their counselors define femininity, so that the students, aware of their perceptions, might make better career choices and the counselors, aware of models of femininity different from their own, might avoid stereotype-bound counseling.

Reliability. Eighty-six women participated in the first study done with this scale, conducted by the author. They were divided into married and not married categories and were assigned to the appropriate career group (Homemaker, n = 33; Feminine, n = 30; Androgynous, n = 23). Average characteristics of women in the Homemaker Career group were 51 years old, had one year of college, four children, and annual income of $19,000; 25 were married and eight were not. For women in the Feminine Career group, the averages were 35 years old, four years of college, 2.4 children, and a combined annual income of $15,000; 13 were married and 17 were not. Average characteristics of women in the Androgynous Career group were 41 years old, six years of college, 2.1 children, and a combined annual income of $18,000; 13 were married and 10 were not. Internal reliability, as measured by coefficient alpha, range from .73 to .83 for different scales (n= 86).

A year later Hawley conducted another study with 136 randomly selected women college students who were majoring either in teacher preparation (n = 45), math-science (n = 39), or counseling preparation (n= 52). Mean age of the teacher group was 26.34 years; 21 were married and 18 were not. Mean age of the math-science majors was 26.56 years; 21 were married and 18 were not. Mean age of counselors was 32.81 years; 27 were married and 25 were not. They had an average of 4.7 years teaching experience. Subscale reliability ranged from .70 to .84, and the overall reliability estimate was .93.

In 1975, a revised version of the scale was given to 2,234 female high school students and 65 counselors, 31 of whom were women and 34 men. The students were randomly selected from 12 public high schools and one parochial school in Southern California. They were free to take either the English or Spanish version; however, the number who took each version was not recorded. The alpha coefficient (determined using Cronbach's generalization of KR-20) was .86 for the young women and .93 for counselors.

Validity. All three of Hawley's studies (1971, 1972, 1975) demonstrated that the scale discriminates between groups in the samples. Women's perceptions of male views of the feminine ideal differed significantly depending upon their career group and according to their marital status. Refer to the publications listed in the reference section of this description for further information on development and validity.

In the spring of 1977, Hawley administered her scale and the Bem Sex Role Inventory (BSRI) to 56 male and female graduate students of education. It was assumed that each scale measures androgyny. Although no correlation was found between the total scores on the two instruments, a number of significant relationships were found between certain items on the Hawley Scale and the "difference" score on Bem's Inventory (Hawley, 1977).

SAMPLE ITEMS

Very strongly agree
Strongly agree
Agree
Disagree
Strongly disagree
Very strongly disagree

1. Men and women should share both the responsibilities and privileges of life equally.

7. Men should make the final decision in financial matters and women should make the final decisions concerning the home.

15. A woman should work only if she can do so without interfering with her domestic duties.

22. Modern women are too competitive.

29. There is no genetic difference between the sexes in intellectual ability.

33. It is just as important for women to be intellectually capable as for men.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage.

The author requests copies of studies using the instrument.

REFERENCES

Hawley, P. Empirically-based counseling practices for women. *Focus on Guidance*, 1976, *8*, 1-10.

Hawley, P. Perceptions of male models of femininity related to career choice. *Journal of Counseling Psychology*, 1972, *19*, 308-313.

Hawley, P. *Sex-fair career counseling*. National Vocational Guidance Association. Tested-Practices Series, 1977.

Hawley, P. *The state of the art of counseling high school girls*. Final report. Project No. 0675 P. The Ford Foundation Faculty Fellowship for the Research of Women's Roles in Society. San Diego: San Diego State University, June 1975.

Hawley, P. The state of the art of counseling high school girls. *Planning ahead with girls and women: Strategies for action*. National Vocational Guidance Association, Commission on the Occupational Status of Women Conference, Rutgers University, July 1975.

Hawley, P. What women think men think: Does it affect their career choice? *Journal of Couseling Psychology*, 1971, *18*, 193-199.

Kaplan, R. M., & Goldman, R. G. Stereotypes of college students toward the average man's and woman's attitudes toward women. *Journal of Counseling Psychology*, 1973, *20*, 459-462.

ATTITUDES TOWARD THE DUAL ROLE OF THE PROFESSIONAL WOMAN

AUTHOR

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City University of New York
33 West 42nd Street
New York, New York 10036

DATE DEVELOPED

1967

INSTRUMENT TYPE

Attitude survey

Sex Role Perception

MEASUREMENT VARIABLES

Attitudes toward married professional women, sex stereotyped attitudes

TARGET POPULATION

The instrument was designed to be used with adults of both sexes.

INSTRUMENT FORMAT

The instrument consists of six statement items in true/false (agree/disagree) format. The statements are concerned with the ability of the married professional woman to fulfill home and career responsibilities. Respondents are also asked to provide information on their sex, age, education, race, occupation, and experience.

ADMINISTRATION

The instrument is designed as a mailed questionnaire. Directions do not accompany the instrument in its presently available format. Brief instructions requesting the respondent to circle 'agree' or 'disagree' could be added. Administration time is approximately 5 minutes.

SCORING

The instrument was not designed to yield individual scores but to provide data for analysis of differences in attitude between groups. In order to do this, tabulations are made of the percent of subjects agreeing with each item. The questions can be hand scored.

DESCRIPTION

Development. In an effort to assess attitudinal factors which might in part explain why so few contemporary women pursue graduate education and professional occupations, this instrument was developed to measure attitudes towards the dual role of the married professional woman. The instrument was originally administered to 90 subjects, including all the married professional personnel affiliated with a university research organization and a social service agency. Analysis of the responses provided by 60 subjects indicated significantly more negative attitudes in married professional men than in married professional women toward the professional married woman's ability to cope adequately with home and work roles. In a second study using the instrument conducted in 1973, the questionnaire was completed by 215 of 331 university faculty members. Once again, the instrument yielded significant differences. More negative attitudes towards the married professional woman were expressed by individuals who were males, in politically conservative fields (business, engineering), older, and holders of less advanced degrees.

Validity. Evidence of the instrument's validity is provided by its ability to discriminate in the expected direction between groups in the two studies in which it has been used.

SAMPLE ITEMS

A=Agree
D=Disagree

1. In general, the married, professional woman is able to adequ meet her responsibilities to both her family and career.
2. In general, the full time homemaker fulfills her obligation her family better than the married, professional woman wh employed full time.
5. Some professions of the married, employed woman interfere than others with her ability to fulfill her family obligatio
6. In general, the professional, married woman chooses to work satisfy personal rather than economic needs.

AVAILABILITY

The instrument may be reproduced from the journal article (Kale 1971). The author requests copies of studies using the instrumen

REFERENCES

Kaley, M. M. Attitudes toward the dual role of the married professional woman. American Psychologist, 1971, 26 3, 301-306.

CROSS REFERENCES

Etaugh, C. F. Attitudes of professionals toward the married professional woman. Psychological Reports, 1973, (32), 775-780.

ATTITUDES TOWARD WOMEN SCALE (AWS)

AUTHORS

Janet T. Spence
Robert Helmreich
University of Texas at Austin
Austin, Texas 78712

DATE DEVELOPED

1972

Sex Role Perception

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for individuals of high school age and above.

INSTRUMENT FORMAT

The Attitudes Toward Women Scale (AWS) is a 55-item Likert-type scale. A 25-item version and a 15-item version of the scale can be used if time is limited or if the test administrator's interest is in a total score rather than responses to specific items. Items on the scale describe the rights and roles that women should be permitted in such areas as jobs and education, freedom and independence, social etiquette, sexual behavior, and marital relationships and obligations. Items require responses on a 4-point scale ranging from 'strongly agree' to 'strongly disagree'. The test booklet can be used with separate machine-scorable answer sheets.

ADMINISTRATION

Administration time is approximately 30 minutes for the long form and 15 minutes for the short. It is a self-explanatory questionnaire and may be administered to groups or individuals. Brief directions accompany the instrument.

SCORING

The test may be hand or machine scored. A scoring key is provided. A total score is obtained for each individual by summing item scores.

DESCRIPTION

Development. In putting together an initial item pool, Spence and Helmreich attempted to include statements that described roles and behaviors in all major areas of activity in which normative expectations could be, in principle, the same for men and women. The instrument was normed on 420 men and 529 women in introductory psychology classes that the University of Texas in Austin tested in the fall of 1970 and 293 men and 239 women tested in the spring of 1972. Additionally, 292 mothers and 232 fathers of the second student sample were surveyed. Data from the norm groups were subject to factor analyses. Principal axis analyses suggested a unifactorial structure in both sexes. Images analyses, which forced greater discrimination, yielded several factors reflecting traditional marital and family roles, equality of opportunity for women (educational and vocational) and social sexual roles and behavior. The results of factor and item analyses were used to produce a 55-item test. Short forms of the scale have also been developed. Correlations between scores on the 25-item scale and the full scale were .97 for both 286 male and 241 female students. Similar correlations for 292 mothers and 232 fathers of these students were both .96. Part-whole correlations between total scores on the 25-item version and individual items ranged from .31 to .73 for students and from .14 to .70 for parents. Factor analyses of the short forms suggest a single factor structure.

Validity. Evidence of predictive validity is provided by the results of analyses on the standardization sample. The scale was standardized on both male-female groups and parent-student groups to test assumptions that there would be both sexual and generational differences in attitudes toward the proper roles and behaviors of women. Data showed that the means of female students were significantly ($p<.001$) higher (more liberal) than those of male students, the means of mothers higher than those of fathers ($p<.01$), and students higher than parents.

Norms. Norms are available on male-female groups and parent-student groups for all forms.

SAMPLE ITEMS

A=Agree strongly
B=Agree mildly
C=Disagree mildly
D=Disagree strongly

6. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

13. Men should continue to show courtesies to women, such as holding open the door or helping them on with their coats.

26. Sons in a family should be given more encouragement to go to college than daughters.

35. Wifely submission is an outworn virtue.

41. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set by men.

46. The husband has in general no obligation to inform his wife of his financial plans.

AVAILABILITY

The AWS may be reproduced from the following sources:

Long Version:
(Manuscript No. 153)
Journal Supplement Abstract Service
American Psychological Association
1200 - 17th Street, N.W.
Washington, D.C. 20036

Short Versions:
Article by Spence and Helmreich (1978) cited in the references.

REFERENCES

Spence, J. T., & Helmreich, R. The Attitudes Toward Women Scale: An objective instrument to measure attitudes toward the rights and roles of women in contemporary society. Journal Supplement Abstract Service Catalog of Selected Documents in Psychology, 1972 a, 2, 66.

Spence, J. T., Helmreich, R., & Stapp, J. A short version of the Attitudes Toward Women Scale (AWS). Bulletin of the Psychonomic Society, 1973, 2 (4), 219-220.

Spence, J. T., & Helmreich, R. Masculinity and femininity: Their correlates and antecedents. Austin: University of Texas Press, 1978.

ATTITUDES TOWARD WOMEN SURVEY

AUTHOR

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Edina West Secondary School
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Edina, Minnesota 55435

DATE DEVELOPED

1968

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with school counselors and has also been used with college students and other adults of both sexes.

Sex Role Perception

INSTRUMENT FORMAT

The instrument is a Likert scale consisting of 68 items. Half of the items are written from a traditional stance and the other half from a liberal perspective.

ADMINISTRATION

The instrument was developed as a mail-out survey and is self-administering. Directions are printed on the form. Administration time is approximately 30 minutes.

SCORING

The instrument is hand scored, and scoring directions are provided. A high score indicates positive attitude toward female participation in traditionally masculine areas and sex fairness.

DESCRIPTION

Development. The instrument was originally developed for high school and college counselors. The items, which were drawn from existing instruments (Drews, 1965; Steinmann, Levi & Fox, 1964) as well as constructed on the basis of two pilot studies, represent five categories of attitudes: (1) attitudes involving the role of women today, (2) child rearing attitudes, (3) attitudes concerning discriminatory practices, (4) attitudes concerning education for women, and (5) attitudes about the nature of work for women.

Reliability. Odd-even reliabilities, based on administration to 186 students, range from .79 to .94. Split-half reliabilities range from .70 to .84.

Validity. The instrument was originally administered to 871 counselors employed in a state department of education and subsequently to a 15% random sample of state counselors. Predictive validity can be inferred from the capacity of the instrument to discriminate between groups, as shown by the findings that female counselors were significantly more non-traditional in attitudes than male counselors, that male counselors whose wives were employed were more non-traditional in attitudes than those whose wives were not employed, that married women counselors showed the most "emergent" attitudes, followed in order by single women, married men and single men. In a follow-up investigation of 365 counselors (1973), it was predicted that it would be possible to divide them into traditional and emergent on the basis of responses to the instrument. However, results showed that fewer than 10% obtained traditional scores. In another study (1974), the instrument was administered at the beginning and end of the semester to 186 female students enrolled in university classes with varying percentages of curriculum devoted to changing male and female stereotypes. Analysis of variance, including as variables, course of study, marital status, race, age and pre-post measurement, yielded significant effects of marital status, age and time of measurement, with married students, students over 25 years of age and students at the time of post-measurement obtaining more emergent scores. These may be regarded as additional evidence of predictive validity as measured by the capacity of the instrument to detect significant differences between groups.

SAMPLE ITEMS

Strongly agree
Mildly agree
Equally agree and disagree
Mildly disagree
Strongly disagree

1. Nurturance and concern for others are equally important for men and women.

30. The emphasis on beauty and desirability tend to encourage a premature marriage concern among our teenaged girls.

42. Women handle routine, detailed,repetitive tasks better than creative and imaginative tasks.

54. Courses in the arts and romance languages should be considered by more boys than are considering them today.

66. Colleges and universities should continue to enforce the anti-nepotism rules by not permitting joint hiring of husband-wife teams, irrespective of qualifications.

AVAILABILITY

The instrument, including instructions and scoring directions, may be reproduced from Women in Flux (1972), cited in the references.

REFERENCES

Eckstein, D. & Eckstein, J. Investigating emerging attitudes toward women. (ED 137 653)

Englehard, P. A survey of counselor attitudes toward women. Impact. October 1974, 14-28.

Werner, J. Girls vocational choices: Counselor attitudes. Program presented at the regional convention of the American Personnel and Guidance Association, May 1973, Atlanta, Georgia.

Women in Flux. Impact, Winter, 1972, 31-34.

CROSS REFERENCE

Hansen, L. S., & Rapoza, R. S. Career development and counseling of women. Springfield, Illinois: Charles C. Thomas Publishers, 1978.

THE BELIEFS ABOUT EQUAL RIGHTS SCALE (BAERS)

AUTHORS

Carole L. Anderson
Leonard I. Jacobson
Psychology Department
University of Miami
Coral Gables, Florida 33124

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Sex role perception, attitudes toward equal rights for men and women

TARGET POPULATION

The scale is designed to be used with adults of both sexes.

INSTRUMENT FORMAT

The scale consists of 28 statements in a true/false format concerning the roles and behaviors of men and women in familial, societal and work situations.

ADMINISTRATION

The Beliefs About Equal Rights Scale (BAERS) may be group administered. Directions and a Participant Information Sheet are printed on each form. Administration time is approximately 10 minutes.

SCORING

The instrument may be scored by hand or by computer. Sixteen 'false' and twelve 'true' responses indicate a positive attitude toward equal rights. A scoring key is included in Jacobson, *et al*. (1976) cited in the references.

DESCRIPTION

Development. The BAERS is constructed around the hypothesis that attitudes toward men and women are so closely bound that it is not possible to understand attitudes toward either sex without understanding attitudes toward both sexes. From an original pool of 75 items, a panel of investigators constructed a scale of 59 items determined to have content validity. Three administrations of the scale to similar groups of undergraduate students in introductory psychology yielded the final scale of 28 items.

Reliability. Internal reliability of the 28-item scale has been estimated at .86 using the KR-20 formula.

Validity. The BAERS has been reported to be uncorrelated with Spence and Helmreich's Attitudes Toward Women Scale (AWS) in a study of college undergraduates (r = .14). However, significant correlation was not expected because of the conceptual difference between beliefs about equal rights for both sexes and attitudes toward women. In a study of college undergraduates, scores on the scale have been shown to be significantly related to sex, age and ethnic origin in the directions predicted, with females scoring higher than males, older adults (women returning to college) scoring higher than younger, and Anglo-Americans scoring higher than Black Americans and Spanish Americans. Further evidence of the concurrent validity of the scale is provided by the finding that members of the National Organization for Women scored higher than any group of undergraduates, as well as by the finding that scores for this group varied directly with degree of involvement in the organization.

Additional Information. The authors indicate that at the time of this writing numerous investigations using this scale are currently underway on four continents. The results of these investigations will be made available by the authors.

SAMPLE ITEMS

1. I would vote for a man rather than a woman for a political position. (F)

12. I would give my son the same advice on sex that I would give my daughter. (T)

24. A woman can do any job a man can do. (T)

AVAILABILITY

The instrument is copyrighted and is available from the authors at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Jacobson, L. I., Anderson, C. L., Berletich, M. S., & Berdahl, K. W. Construction and initial validation of a scale measuring beliefs about equal rights for men and women. Educational & Psychological Measurement, 1976, 36, 913-918.

CHILDREN'S SEX ROLE PERCEPTION (DOLL-CHOICE MEASURE)

AUTHORS

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Dorothy S. Fidler
University of South Carolina
Columbia, South Carolina

Ronald W. Rogers
Department of Psychology
Box 2968
University of Alabama
University, Alabama 35486

DATE DEVELOPED

1976

INSTRUMENT TYPE

Individual interview

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for preschool children of both sexes between three and five years of age.

INSTRUMENT FORMAT

The Doll-Choice Measure consists of two instruments, a nine-scale instrument and a five-scale instrument. The nine-scale instrument has two sections, one measuring children's sex roles and one measuring parent's sex roles. The children's sex roles section is divided into five scales: Intelligence, Play Activities, Androgynous Activities, Work Activities and Affective Behavior. The parent's sex role section is divided into four scales (play activities are not included) with items appearing in the same format as the children's section. The five-scale instrument includes a Working Mothers Scale, Nurturing Fathers Scale, Children's Play Activities Scale, Children's Affective-Expressive Scale and Children's Perceived Intelligence Scale. In each instrument the child is asked a series of questions about who can do different kinds of activities. The child responds by pointing to a doll.

ADMINISTRATION

The instrument is designed for individual administration and requires approximately 10 minutes of testing time. In the experiment for which the instrument was developed, subjects responded to the instrument items by pointing to the doll or dolls which they felt fit the item description. A boy doll and a girl doll were used in the children's section. A "father" doll and a "mother" doll were used in the parent section. A description of administration procedures is provided in Flerx et al. (1976), as cited in the references.

SCORING

Responses are scored from most stereotyped to most egalitarian. The nature of the response (stereotyped or egalitarian) is determined by previous empirical research and by consideration of the principles of the women's liberation movement. A stereotyped response is scored one point. An androgynous response is scored two points. An egalitarian response receives a score of three points. A total score is obtained by summing the scores of each item. Higher scores indicate more egalitarian attitudes.

DESCRIPTION

Development. The measurement procedures were developed to be used in experimental studies of sex role perception of three-, four- and five-year-old children. The scales were constructed on an a priori basis. A first experiment was conducted with the nine-scale instrument in order to study the development of sex role stereotypes in young children as well as the effects of symbolic modeling as measured by a program of literature presented during the children's regular story time on changes in sex role attitudes. The egalitarian treatment was composed of picture books that had been recommended by several surveys of children's literature as containing an unusually egalitarian portrayal of the roles of males and females in society. The traditional treatment was composed of books these surveys described as containing particularly traditional, stereotyped male and female models. The second experiment was conducted with the five-scale instrument. Among the objectives of the second experiment was comparison of the effects of symbolic modeling in picture books with symbolic models on films.

Reliability. Internal reliability of the nine-scale instrument, as measured by coefficient alpha, ranges from .55 to .75 with a median value of .62 for six of the scales. Three other scales were excluded from data analysis due to failure to reach a standard of .50 as a minimally acceptable value in initial stages of research with a measure. Internal reliability of the five-scale instrument ranges from .69 to .82 for different scales.

Validity. Some evidence of predictive validity is provided by the studies in which the instruments were used. The results disclosed that while some aspects of sex role stereotypes are present at age 3, other aspects are acquired at 3 and 4 years of age. Additionally, males were found to exhibit more stereotyped responses than females. Interaction effects in an analysis of variance revealed that an egalitarian literature presentation was more effective at age 5 than age 4 and more effective for females than males. Egalitarian symbolic models in films also produced more enduring attitude change on several measures than similar models in picture books. These findings may be regarded as evidence of predictive validity as measured by the capacity of the instrument to detect significant differences between groups as well as significant change within subjects on pre-post measures.

SAMPLE ITEMS

(Children are provided with either of two sets of dolls (boy and girl dolls or mother and father dolls) to use in responding to items.)

Intelligence Scale

Pretest item: Show me who could work a hard puzzle the fastest.

Pretest item: Show me who is the smartest.

Affective Behavior Scale

Pretest items: Show me who would be afraid of a big bug.

Show me who kisses Mommy and Daddy goodbye when leaving for kindergarten.

Posttest items: Show me who cries when they fall down and hurt their knee.

Show me who hugs other people a lot.

AVAILABILITY

The instrument is available upon request from the third author, Dr. Ronald W. Rogers.

REFERENCES

Flerx, V. C., Fidler, D. S., & Rogers, R. W. Sex role stereotypes: Developmental aspects and early intervention. Child Development, 1976, 47, 998-1007.

CHILDREN'S SEX STEREOTYPES OF ADULT OCCUPATIONS

AUTHORS

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University of New Mexico
Albuquerque, New Mexico 87131

Sex Role Perception

Lynne Kahn
Department of Educational Psychology
Indiana University
2805 E. 10th Street
Bloomington, Indiana 47401

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Sex role stereotyping, career role stereotyping

TARGET POPULATION

The instrument was designed for elementary school students.

INSTRUMENT FORMAT

The instrument consists of three parts: (1) a language lesson to ensure that the child has been exposed to the difference in meanings among 'can', 'should', and 'is'; (2) directions and four examples; and (3) 21 occupations which the child rates on a 5-point scale ranging from 'only women' to 'about the same number of men and women' to 'only men'. The child responds twice to each occupation, once to the question 'who can do it?' and once to 'who should do it?' The child's answer sheet uses both words and pictures to describe the 5-point scale.

ADMINISTRATION

The scale can be administered to groups or individuals. The authors tested children in groups ranging from five to 30. With younger children and for large groups, several adults, half of them female and half male, should aid the administrator. The adults should also reflect the ethnic background of the children being tested. Administration time is approximately 30 minutes. Directions are provided.

SCORING

The instrument can be scored in several ways. (1) The items can be used individually to test the effects of materials designed to change attitudes about specific jobs. (2) Each child can be given three scores, obtained by summing the ratings across masculine, across feminine, and across neutral jobs where a job's sex-typing is determined from the census listings of the proportion of each sex doing that job. (3) Each child can be given a total stereotyping score, obtained by reversing the ratings on all jobs that the census indicates are more than 50% filled by men and then summing the ratings on all jobs. Scoring directions are available from the first author.

Sex Role Perception

DESCRIPTION

Development. This instrument was designed to explore age changes and sex differences in the flexibility of children's sex-related occupational stereotypes. Forty occupations were chosen from the SRA Occupation Kit (1964) representing three levels of educational requirements and a predominance of male, female, or neutral members. A 5-point pictorial response scale was successfully piloted on 185 elementary level students to determine usability of this response mode. Subsequently, 355 students in grades 1, 3, and 5 from a middle-class suburban school were asked to rate each of the 40 occupations on the 5-point scale. The scale was then reduced to 21 occupations. The instrument has been used with approximately 900 first- through fifth-grade children in five schools in three midwestern towns and cities. Further studies are in progess, using the 21-occupation scale to learn more about what influences children's gender requirements for adult occupations.

The purpose of this scale is to measure elementary-school children's sex stereotypes about adult occupations in terms of ability (who can be) and prescription (who should be). Using this instrument, Schau and Kahn conducted a study that demonstrated that at least some aspects of children's occupational sex-role stereotypes can be modified through the material they read in school.

Reliability. For the 40 item version, 185 first-, third-, and fifth-grade children from two schools served as subjects. To determine reliability, the scoring of female-stereotyped items was reversed to match male-stereotyped items. Thus, a score of 5 meant maximum stereotyping, 3 was neutral and 1 meant reverse stereotyping. For the 'can' scale, the resulting alpha was .85, indicating high internal consistency. For the 21-item version, using 900 first- through fifth-graders, coefficient alphas were in the .90s for both the 'can and 'should' scales.

A shortened version of the 40-item scale, including 20 of the more stereotyped occupations, was readministered, at a one-month interval, to 144 members of the sample. The resulting distribution of means pooled across sex and grade was compared to the initial means using a Wilcoxon Matched-pairs signed rank test. The means were stable over time ($T=95$, $n=20$, $p < .05$). However, 19 of the 20 retested jobs were somewhat less stereotyped at the retesting, due possibly to such factors as a sensitizing effect, social desirability responses triggered by the first testing, or increased cognitive sophistication.

Validity. The children's gender ratings of jobs closely matched reality as seen in census data. In addition, the children saw few occupations as being for women and many for men, supporting the personal vocation preference research that indicates that boys see more future job possibilities than girls. Finally, the finding that older children have more flexible gender attitudes toward occupations than younger ones gives support to a cognitive component in sex role stereotyping.

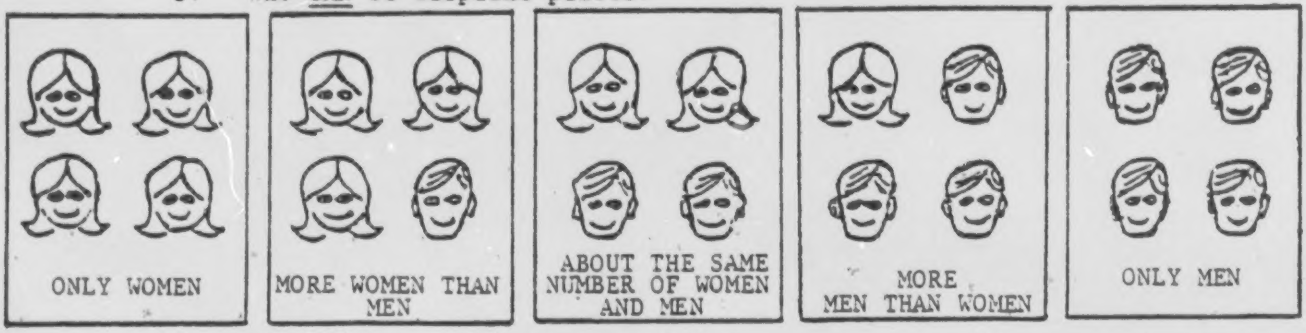
Additional Information. Results of the multivariate analysis of variance using the 40-item scale are presented, as well as means, standard deviations, and sample sizes. A summary is available of a 1977 study, using the 21-item version of the scale, and examining the effect of role-reversed stories on children's gender requirements for occupations. Two other researchers have reported to the authors that they have used the scale and have found significant differences in scores between children exposed to non-sexist curricular materials and children not exposed.

SAMPLE ITEMS

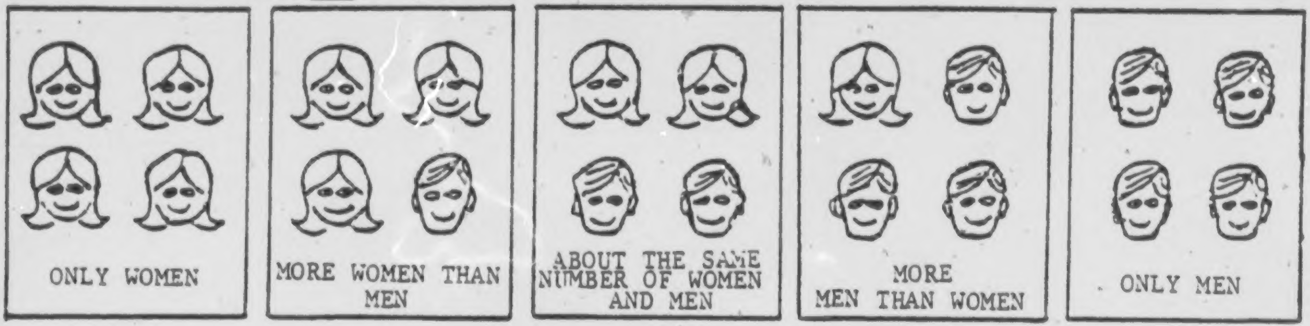
To the administrator: Read the number of the job and the job description. Then ask "Who do you think (can or should) be (job name)?" Go through all 21 jobs asking for either can or should stereotypes; then repeat all 21 asking for the other stereotypes.

ANSWER SHEET SAMPLE

3. Who CAN be airplane pilots?


ONLY WOMEN
MORE WOMEN THAN MEN
ABOUT THE SAME NUMBER OF WOMEN AND MEN
MORE MEN THAN WOMEN
ONLY MEN

4. Who CAN be grade school teachers?


ONLY WOMEN
MORE WOMEN THAN MEN
ABOUT THE SAME NUMBER OF WOMEN AND MEN
MORE MEN THAN WOMEN
ONLY MEN

AVAILABILITY

The instrument is copyrighted and is available at duplicating cost plus postage from the first author.

REFERENCES

Ein,* P.L. The effects of role-reversed stories on children's stereotyping of occupations. Paper presented at the annual meeting of the American Psychological Association, San Francisco, August 1977.

Garrett,* C. S., & Ein, L. The effect of role-reversed stories on children's gender-requirements for adult occupations. AERA abstract, 1977.

Garrett, C. S., Ein, L., & Tremaine, L. The development of gender stereotyping of adult occupations in elementary-school children. Bloomington, Indiana: Institute for Child Study, 1975.

Garrett, C. S., Ein, L., & Tremaine, L. The development of gender stereotyping of adult occupations in elementary school children. Child Development, 1977, 48, 507-512.

Garrett, C. S., & Kahn, L. Broadening children's stereotypes about sex-requirements for adult occupations: A small grant intervention strategy. Women's Educational Equity Act Grant Final Report, 1977.

*Note: Garrett is now Schau and Ein is now Kahn.

THE FEM SCALE

AUTHORS

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315

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitude toward feminism

TARGET POPULATION

The instrument is designed for use with college students and adults of both sexes.

INSTRUMENT FORMAT

The FEM Scale is a 20-item scale in Likert format. Sixteen items are phrased so that disagreement indicates support of the feminist position, and four so that agreement indicates support of the feminist position.

ADMINISTRATION

The instrument is designed for group administration. Approximately 5 minutes are required for completion. Directions are not included, but it appears that subjects choose one of five response alternatives for each statement, ranging from 'Agree Strongly' to 'Disagree Strongly'.

SCORING

The instrument is designed to be hand scored. Scoring directions are not provided, but it appears that a total score consists of the average of the points summed over the items. The direction of scoring for each item is provided in Smith, Ferree, and Miller (1975). A higher score reflects more support of a feminist position.

DESCRIPTION

Development. The FEM Scale was designed to be a convenient short measure of attitudes toward feminist beliefs. It is based on Kirkpatrick's (1936) Belief Pattern Scale. The initial scale consisted of 41 items from Kirkpatrick's scale and 16 items developed by the authors, with a choice of agree or disagree for each item. This instrument was pilot-tested with 28 male and 11 female undergraduate students. These subjects were asked to complete the questionnaire twice, the second time role-playing a strong pro-feminist or a strong anti-feminist position. Items were discarded if as many as five persons disagreed with the majority interpretation of the direction of an item. The reliability of the 48 remaining items was computed by a measure of internal consistency, based on the subjects' original (non-role-playing) responses. The reliability of the 48-item scale was .92.

The scale was further refined by selecting 27 items which were nonrepetitive, showed good variability, and discriminated between subjects. This 27-item scale, with a 5-point Likert format, was administered to 100 college summer school students ranging in age from 15 to 34. The mean score for women on this scale was 4.03 and for men, 3.85. A factor scaling method was applied to arrive at the final 20-item version of the scale. Items with small loadings (below 0.40) on the Scale's single factor were excluded. The correlation between the 20-item and the 27-item scales is .97.

Reliability. In addition to the reliability data described above, a reliability coefficient of .89 was computed on the 27-item scale using the Kuder-Richardson method. The sample for this test was the college summer school student sample described previously. The reliability of the 27-item scale was .90 with the summer school student sample.

Validity. To assess construct validity responses to the 27-item FEM Scale were correlated with a measure of subject involvement in the women's movement and with two other psychological tests (n = 100). Subjects completed two involvement measures, a 3-item questionnaire describing how much the subject identified with the women's movement, and an 11-item inventory of feminist activities. Subjects also completed the Rotter Internal-External Scale (IE) (1966) and the Rubin-Peplau Just World Scale (1973). Results of the study indicated a strong correlation between the FEM Scale and the activism and identification measures which the author had hypothesized. Further, the results supported the authors' predictions about correlations with the IE and Just World Scales indicating the feminist's tendency to be more internal (exercising control over one's life) and less inclined to view the world as a just place. Results showed correlates of .63 with the measure of identification with the women's movement, .39 with the measure of feminist activism, .05 with the measure of externality, and .24 with the Just World Scale.

SAMPLE ITEMS

Agree
Disagree

3. The unmarried mother is morally a greater failure than the unmarried father.

8. Whether or not they realize it, most women are exploited by men.

19. A woman should not expect to go to the same places or have the same freedom of action as a man.

AVAILABILITY

The items of the FEM Scale may be reproduced from Smith, Ferree, and Miller (1975), cited below. The authors would appreciate receiving an abstract from anyone who uses the scale for any type of research. The information should be sent to the first author.

REFERENCES

Smith, E. R., Ferree, M. M., & Miller, F. D. A short scale of attitudes toward feminism. Representative Research in Social Psychology, 1975, 6, 51-56.

FEMINISM SCALE

AUTHOR

Judy Dempewolff
34 Cottage Street
Natick, Massachusetts 01760

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitude toward the women's movement

TARGET POPULATION

The instrument is designed for use with university or college students and staff.

INSTRUMENT FORMAT

Three forms of the Feminism Scale are available, a long form with 56 items and two short forms of 28 items each. Each of the short forms contains half of a pair of items, one endorsing feminism, and the other (with approximately the same content) supporting traditional roles. All three forms are 4-point Likert-type scales, with response choices ranging from 'agree very much' to 'disagree very much'.

ADMINISTRATION

Administration time is approximately 10 to 15 minutes. Directions accompany the instrument.

SCORING

Hand scoring procedures are included with the scale.

DESCRIPTION

Development. The author conducted a pilot study in which various individuals and groups with known views about the women's movement were surveyed. The sample included married and unmarried male and female graduate students, female physical therapists, secretaries, and their boyfriends.

The Feminism Scale was designed to measure attitudes toward the aims of the women's movement, defined by the author as "the attempts to bring about a change in the role and status of women in the direction of equality with men."

Reliability. Dempewolff (1974) reports a Spearman-Brown correlation coefficient of .96 for a sample of 225 students (106 men and 119 women) from an introductory psychology class at the University of Cincinnati. Parallel forms reliability estimate for matched halves yields .96 for the short form and .98 for the total scale.

Two groups of 25 introductory psychology students at the University of Delaware took one of the short forms and after two weeks took the alternate form. Data from their scores produced a correlation co-efficient of .92 between Form A and Form B, establishing a parallel forms reliability estimate of .95.

Validity. The author studied 154 students who were members of selected groups or organizations at the University of Cincinnati, including 42 men from ROTC or a conservative fraternity; 44 women from Angel Flight, Bearkittens, or a conservative sorority; and 68 men and women who supported the aims of the women's movement. This last group consisted of persons from a women's seminar, women in a women's studies course, McGovern supporters, Zero Population Growth members, and a student community involvement program. Subjects completed the Feminism Scale, Social Distance Scale, Independence of Judgment Scale, Modernism II Scale, and demographic and family background items.

Means and standard deviations for those groups supported the author's hypothesis that members of selected groups would oppose or support the women's movement, depending upon their general political outlook.

Norms. Dempewolff presents means for males and females, three analyses of variance of autonomy measures as a function of feminist attitude and sex, and mean scores on each item for males and females.

SAMPLE ITEMS

AA = Agree very much
A = Agree a little
D = Disagree a little
DD = Disagree very much

Form A

6. A woman should take her husband's last name at marriage.

9. Sex is no indication of fitness or lack of fitness to enter any type of occupation.

Form B

6. A woman should be able to officially retain her own last name after marriage.

9. Because of their physical limitations, women should be advised to choose less strenuous types of occupations.

AVAILABILITY

The instrument is copyrighted. Potential users must obtain permission from the author and document their intended use of the instrument. The instrument may be ordered from the author at duplicating cost plus postage.

REFERENCES

Dempewolff, J. Development and validation of a feminism scale. Psychological Reports, 1974, 34, 651-657.

Dempewolff, J. Some correlates of feminism. Psychological Reports, 1974, 34, 671-676.

HEMMONS ATTITUDE QUESTIONNAIRE

AUTHOR

Willa Mae Hemmons
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Cleveland State University
Cleveland, Ohio 44115

DATE DEVELOPED

1973

INSTRUMENT TYPE

Attitude scale

Sex Role Perception

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The questionnaire is designed for use with adult women.

INSTRUMENT FORMAT

This is a Likert scale consisting of 19 statements. The subject responds on a 5-point scale ranging from 'strongly agree' to 'strongly disagree'.

ADMINISTRATION

The questionnaire is designed for group administration. Instructions for filling out the instrument are not included, but oral directions are to be given by the instrument administrator. Time required for completion is approximately 30 minutes.

SCORING

The four subscales of the questionnaire (femininity, racial liberalism, female liberalism, and anomie) are scored separately by summing the points on the individual items. A low numerical score represents a high rating on a variable. The scoring procedure is described in the author's doctoral dissertation cited in the references.

DESCRIPTION

The Hemmons Attitude Questionnaire was designed to be used in a socio-psychological investigation of the attitudes of black women toward the women's liberation movement. The author tested three hypotheses: (1) endorsement of the traditional female role is negatively related to female liberalism; (2) manifestation of liberal attitudes toward the Black Power movement is positively associated with female liberalism; and (3) lack of group integration is incompatible with female liberalism. The original questionnaire administered to the study sample consisted of 60 items. Of these, the most highly correlated items for each subscale were selected through item analysis and were used in the final scale.

Reliability. Alpha coefficients based on an analysis of the 60-item questionnaire for the five subscales are reported as: femininity, .74; racial liberalism, .52; female liberalism, .77; anomie, .52.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended. Additional evidence of the validity of the instrument as measured by internal structure is provided by the negative correlation of the Femininity Scale with the Female Liberalism Scale (for 45 black women, $r = -.46$ and for 37 white women, $r = -.46$) the positive correlation between the Racial Liberalism Scale and the Female Liberalism Scale (for black women, $r = .46$ and for white women, $r = .56$).

Additional Information. Although this questionnaire is conducive to group administration, it can be given individually. Of course, under any conditions, confidentiality of results should be stressed as is required by Federal Regulations concerning privacy, as well as by scientific principles regarding ethical considerations. Any release of any information obtained pursuant to the administration of this questionnaire, should be done only upon the express written consent, voluntarily and knowledgeably given by the subject herself.

As to conditions and/or situations under which the procurement of the information inherent in this instrument might be helpful (other than, of course, in the case of pure research) there are numerous such times. In fact, any situation in which an ascertainment of how well a woman knows herself is desired could benefit from the data obtained from this questionnaire--i.e., job situations, consciousness raising groups, career orientations, educational activities, community efforts, self-awareness or self-actualization programs, family counseling, marketing research, legislative or judicial investigations.

SAMPLE ITEMS

Strongly Agree   Strongly Disagree

____ ____ ____ ____ ____

A wife should do everything she can to help her husband further his career, even if it means sacrificing her own.

For Black women, the Black Power Movement is more important than the Women's Liberation Movement.

Most of my friends like the Women's Liberation Movement.

A person who can't get along without other people is weak.

AVAILABILITY

The instrument is copyrighted and may be obtained from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Hemmons, W. M. Towards an understanding of attitudes held by the black woman on the women's liberation movement. Unpublished Doctoral Dissertation, Case Western Reserve University, 1973.

JOB JUDGMENTS QUESTIONNAIRE

AUTHOR

Patrick O'Neill
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Canada

DATE DEVELOPED

1973

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role stereotyping in careers

TARGET POPULATION

The instrument was designed for use with college students.

INSTRUMENT FORMAT

The instrument has two forms. Each consists of four one-paragraph biographical sketches, two assigned masculine names and two feminine names. On alternate forms, the descriptions are the same but gender is reversed. Each description is acccompanied by a list of eight occupations. Subjects first circle the occupations for which each person described is best suited. Then they rate each person on a 7-point scale as to how good a parent he or she would be.

ADMINISTRATION

The instrument is designed for group administration. Directions are given on the questionnaire and administration instructions appear in the paper cited in the references (O'Neill, 1975).

SCORING

Three scale scores are computed for each of the four stimulus descriptions, Masculinity (M), Status (S), and Child-rearing Competency (C). Total individual scores are not computed. Directions for scoring and a key to the status/masculinity of each job are explained in O'Neill's paper cited in the references.

Sex Role Perception

DESCRIPTION

Development. The instrument was developed to measure the tendency of individuals to make judgments about career appropriateness and the potential for good parenting on the basis of gender instead of on the basis of other characteristics. In order to identify occupations varying in status and masculinity to serve as response options, lists of occupations were presented to university students with instructions to rank the occupations in terms of status and also to indicate whether each occupation was a male job, female job, or both. The responses of these subjects were used to develop a list of eight careers (two ranked high status/masculine, two low status/masculine, two high status/neutral, and two low status/neutral) which became the response options for the stimulus descriptions.

Validity. The instrument has been administered to 196 female and 89 male university students, using both forms of the test in order to make comparison of responses to the same biographical sketch with a feminine and masculine name. Data were analyzed separately for men and women subjects. In comparing mean scores for each stimulus description, for both male and female subjects, the "masculinity" of the occupation was of greater influence than its "status" in eliciting prejudicial responses. Stimulus descriptions with feminine names were often assigned high status occupations but were not often assigned traditionally masculine occupations. These findings may be regarded as evidence of predictive validity as measured by the capacity of the instrument to detect significant differences. Differences between male and female stimulus descriptions for the parental competency ratings were generally insignificant for male subjects. Female subjects strongly favored two of the stimulus descriptions over the others, independent of whether they were attributed to male or female names, but due to the complexity of each description it was difficult to pinpoint the traits judged important in child-rearing competency.

SAMPLE ITEMS

Donna Brown is a college freshman. She has an I.Q. of 112, putting her in the high average range of intelligence. She is very popular and has a full social life. Whenever there is an election for anything, Donna usually wins and does a good job. Sometimes she feels pushed for time and wishes she had the nerve to say "no" to some of the demands that are placed on her.

Circle the occupations for which this person is suited.

Architect
Stock Broker
School Teacher
Insurance Agent
Nuclear Physicist
Bookkeeper
College Professor
Medical Doctor

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage.

A complete description of the instrument items (although not the instrument itself) is available through:

ERIC Document Service
P. O. Box 190
Arlington, Virginia 22210

The author would like copies of studies using the instrument.

REFERENCES

O'Neill, P. Variables affecting assignment of occupations to men and women. Paper presented at the Annual Meeting of the American Psychological Association, Chicago, 1975. (ED 119 091)

KAMMEYER'S FEMININE ROLE BEHAVIOR SCALE

AUTHOR

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University of Maryland
College Park, Maryland 20742

DATE DEVELOPED

1961

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The scale was designed for use with adults. It has been used to assess the attitudes of men but has been primarily used with college women.

INSTRUMENT FORMAT

The instrument is a Guttman scale, consisting of five items in Likert format. Item content addresses women's family and educational roles.

Sex Role Perception

ADMINISTRATION

The instrument is designed for group administration. It can be completed in three or four minutes.

SCORING

The scale is scored by hand. All items are stated in the traditional direction. If the respondent agrees with the first three items or more, she is categorized as 'traditional', otherwise she is categorized as 'modern'.

DESCRIPTION

Development. Kammeyer's Feminine Role Behavior Scale is a five-item Guttman scale developed in 1961 and embedded in a longer questionnaire administered to female undergraduates in a study of the effects of ordinal position on attitudes toward sex roles. A replication was conducted in 1973 and longitudinal comparisons made between the responses to each traditionally phrased item at the time of original and subsequent administrations. The capacity of the instrument to detect change in attitudes over time is illustrated by the longitudinal decreases in agreement with all items, which ranged from -34.5% to -65.6%, demonstrating the strong trend away from traditional sex roles attitudes among unmarried college women over the course of a decade.

Reliability. A coefficient of reproducibility of .93, based on 209 responses, is reported for the original administration, demonstrating that the instrument meets the criterion of better than 90% accuracy in predicting responses to individual items from a knowledge of total score. To determine the extent to which scalability replicated in the 1973 data, another Guttman scaling analysis was conducted and a coefficient of reproducibility of .86 was obtained.

Validity. The finding that the instrument detected changes in attitudes towards sex roles in female undergraduates over time in the predicted direction may be regarded as a test of its predictive validity.

SAMPLE ITEMS

1. In marriage, the major responsibility of the wife is to keep her husband and children happy.

3. In marriage, the husband should make the major decisions.

5. English is a better major for a college girl than economics.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage, and it is also reproduced in full in the journal articles cited below. The author would like copies of studies using the instrument.

REFERENCES

Kammeyer, K. The feminine role: An analysis of attitude consistency. Journal of Marriage and the Family, 1964, 26, 295-305.

Kammeyer, K. Birth order and the feminine sex role among college women. American Sociological Review, 1966, 31, 508-515.

Kammeyer, K. Sibling position and the feminine role. Journal of Marriage and the Family, 1967, 29, 494-499.

Orcutt, J. D. The impact of student activism on attitudes toward the female sex role. Social Forces, 1975, 54(2), 382-392.

CROSS REFERENCES

Miller, D. Handbook of research design and social measurement (2nd ed.). New York: David McKay Company, Inc.

LIFESTYLES FOR WOMEN ATTITUDE SCALE

AUTHOR

Marie Susan A. Burns
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Peabody College
Nashville, Tennessee 37203

DATE

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with college students of both sexes.

327

Sex Role Perception

INSTRUMENT FORMAT

The instrument has two parts. Part one contains six items related to demographic information and two multiple choice opinion questions. Part two is a Likert-type scale consisting of 20 statements.

ADMINISTRATION

The instrument is designed for group administration. Directions are printed on the form, and separate directions are provided for male and female subjects. Administration time is approximately 15 minutes.

SCORING

A scoring key and scoring instructions are not provided. However, it appears that a score is calculated by summing the responses to each item. Responses to the even-numbered items are reversed for scoring. A higher score indicates preference for a more traditional lifestyle for women.

DESCRIPTION

Development. The instrument was developed to measure attitudes towards women's life styles. Some of the items were adapted from a worksheet developed by K. Bartsch (1973). Other items were selected from ideas expressed in Bardwick (1971) and Oltman (1971). The instrument was administered to 98 female and 95 male undergraduates to evaluate its statistical properties.

Reliability. Internal consistency, as measured by coefficient alpha, is reported at .83 for males, with an average inter-item correlation of .29. For all subjects, item-total coefficients are reported as positive.

Validity. Concurrent validity was assessed by correlating attitude scores with self-reported behavioral views of living partner and of the women's liberation movement. For both sexes, subjects who favored a career orientation for women also expressed greater interest and participation in the women's movement (males: r = -.40, females: r = -.53). Career-oriented females tended to view their living partner as equal or submissive (r = .26), whereas males who viewed their living partner as equal or dominant (r = .30) tended to have a more career-oriented attitude toward life styles for women. Additional evidence of the validity of the instrument is provided by its capacity to discriminate criterion groups consisting of male and female respondents in the expected direction; the mean scores of females were significantly more liberal than the mean scores of males.

SAMPLE ITEMS

1=Strongly agree
2=Agree
3=Undecided
4=Disagree
5=Strongly disagree

5. I expect a career to be basic to my survival (independence, security).

6. I believe in stopping my career when I have a child.

17. A working woman is probably a better companion to her husband.

20. Juvenile delinquency is often caused by having the mother at work.

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage.

REFERENCES

Burns, M. S. A. Life Styles for Women, an attitude scale. Psychological Reports, 1974, 35, 227-230.

LOCKHEED-HARRIS SEX ROLE, CROSS-SEX INTERACTION AND FEMALE LEADERSHIP SURVEY

AUTHORS

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Abigail M. Harris
Educational Testing Service
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DATE DEVELOPED

1976, revised 1977 and 1978

INSTRUMENT TYPE

Attitude survey and factual information questionnaire

Sex Role Perception

MEASUREMENT VARIABLES

Sex role attitudes and experiences, cross-sex interaction and leadership

TARGET POPULATION

The instrument is designed for use with elementary students of both sexes.

INSTRUMENT FORMAT

The 1978 survey is composed of 135 items, most of which are in multiple choice or yes/no response format in two booklets. Items measure students' attitudes about traditional and non-traditional sex roles, the extent to which their school experiences have been non-sexist, self-ratings according to sex-type dimensions and attitudes and experiences related to cross-sex interaction and leadership. The items are typed in large print. Responses are to be marked directly in the booklet.

ADMINISTRATION

The survey is designed for group administration and requires about one hour to complete each booklet. Administration manuals list materials needed, planning requirements, and instructions to be read aloud to the students.

SCORING

The survey is hand scored. Responses are precoded and may be keypunched directly from the booklet. Scoring directions may be obtained from the authors.

DESCRIPTION

Development. The survey was developed over a two-year period during which it was administered to the entire fourth- and fifth-grade population of a New Jersey school district (approximately 900 students) in November 1976, April 1977, October 1977, and April 1978. It was revised between the four administrations. It was used in an evaluation of a project funded by a grant from the Women's Educational Equity Act Program.

Two types of subscales were constructed from the items: (1) attitudinal scales and (2) school-related experience indices. The specific subscales are: attitude toward sex-role stereotypes; attitude toward cross-sex interaction; attitude toward oneself as a leader; attitude toward cross-sex interaction for adults; experience of sex stereotyped role models; experience of teacher imposed cross-sex interaction; experience as a leader.

Both a priori and factor analytic techniques were used in constructing the scales. In general, factor loadings were low, ranging from .15 to .66, with the majority around .35.

Reliability. Alpha coefficients of reliability for each of the four attitude scales were as follows: Stereotypy, .60; Cross-sex interaction, .73; Leadership, .35; Adult cross-sex interaction, .59.

Test-retest correlations were computed comparing fall and spring responses. Pearson correlations for the Experience scales were .19 (Cross-sex interaction) and .54 (sex-stereotyped models) and for the Attitudes scales were .37 (Leadership), .47 (Stereotypy), and .49 (Cross-sex interaction).

Validity. Concurrent validity was estimated from correlations between attitudes and experience in the same domain as compared to other domains. Between the Experience and Attitude Scales on Cross-sex interaction, r = .35; on Leadership, r = .30; on Stereotypy, r = .27. Scores on the subscales of this instrument were also correlated with measures of male occupational stereotypes, female occupational stereotypes, self-esteem, and psychological androgyny. Preliminary results show medium to low correlations for all subscales.

Additional Information. Means and standard deviations by grade and sex are available for each subscale of the instrument.

SAMPLE ITEMS

4. Do you think you will go to college?

(1) __________yes
(2) __________no

8. Do you think you will stop working if you become a father or a mother?

(1) __________yes
(2) __________no
(3) __________don't know

12. Have you ever been in a school that had a woman principal?

(1) __________yes
(2) __________no

22. Would you say that in America it is better to be a man, better to be a woman, or that it doesn't matter if you are a man or a woman?

(1) __________better to be a man
(2) __________better to be a woman
(3) __________doesn't matter

48. In general, would you say that an employer or a company can choose to hire only men for certain kinds of jobs?

(1) __________yes What kinds of jobs? ____________________
(2) __________no ____

59. Are you sensitive?

(1) __________never or almost never
(2) __________not usually
(3) __________sometimes
(4) __________usually
(5) __________always or almost always

66. How often do you like science?

(1) __________never or almost never
(2) __________not very often
(3) __________sometimes
(4) __________most of the time
(5) __________always or almost always

AVAILABILITY

The instrument and manual, which are copyrighted, are available from:

Educational Testing Service
Princeton, New Jersey 08540

REFERENCES

Lockheed, M. E., & Harris, A. A. The effects of equal status cross-sex contact on students sex-stereotyped attitudes and behavior. Paper presented at the annual meeting of the American Educational Research Association, Toronto, 1978.

LUETGERT SURVEY OF ATTITUDES TOWARD SEX ROLES

AUTHORS

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Sex Role Perception

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception (desire for change in sex roles in and out of the home)

TARGET POPULATION

The instrument is designed for use with adults of both sexes.

INSTRUMENT FORMAT

This is a 125-item 5-point Likert-type scale. It also contains 28 demographic items.

ADMINISTRATION

The instrument is designed for group administration. Directions are on the test form. Two answer sheets are to be used. Administration time is approximately one hour.

SCORING

Scoring directions and key are not provided. However, it appears that an individual score for each subscale is calculated by summing points across items.

DESCRIPTION

Development. The questionnaire was designed to measure the extent to which respondents express a desire for change in sex roles in and outside of the home. Items were developed through a content analysis process to reflect a range of issues discussed in recent literature and in public controversy. Items were assigned on the basis of content to either the In the Home scale or the Out of the Home scale. The In the Home scale comprises three subscales: Housework, Child Rearing, and Marital Relationships. The Out of the Home scale consists of five subscales: Vocational-Educational, Legal, Social, Divorce, Stereotypes. The questionnaire was administered to a pilot sample of 213 men and women, and intercorrelations were obtained for all items. Items retained in each subscale correlate significantly with the other items on that subscale.

Validity. Some evidence of predictive validity is provided by the results of one study in which the instrument has been used. The instrument was administered to 530 men and women representing different demographic groups. In order to determine which groups showed a significant desire for change in the status of women, both in and out of the home, *t* tests were conducted on the difference between each demographic group mean and a neutral value of 3.0. With a few exceptions, respondents in all demographic categories were in favor of change. In addition, in 80 out of 84 demographic categories, respondents were significantly more in favor of change out of the home than in the home, and none of the groups favored in the home changes over those out of the home.

SAMPLE ITEMS

Strongly agree
Agree
Undecided or Uncertain
Disagree
Strongly disagree

1. A woman who has ambitious educational and career goals is probably unhappy as a woman.

3. Taking care of the household should be a woman's responsibility.

4. Most women involved in the Women's Liberation Movement exaggerate the extent to which society discriminates against women.

AVAILABILITY

The instrument is available from the first author at duplicating cost plus postage.

REFERENCES

Luetgert, M. J., Armstrong, A. H., Curry, J. M., Creaser, J. W., Ashbaugh, J., & LaPlant, M. J. Today's feminist: Her place is in the home. Paper presented at the annual meeting of the American Psychology Association. Chicago, August-September 1975. (ED 120 637)

MAFERR INVENTORIES OF MASCULINE AND FEMININE VALUES

AUTHOR

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334

Sex Role Perception

DATE DEVELOPED

1955; manual revised 1966, 1973, 1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Self concept and perception of masculine and feminine values

TARGET POPULATION

The instruments are designed for use with secondary school-age, college-age, and adult women and men.

INSTRUMENT FORMAT

The Maferr Inventories are Likert scales each consisting of 34 statements. Half of the items delineate traditional, family-oriented values; the other half represent liberal, self-oriented values. Five forms of each instrument are available, all using the same items but in scrambled order. Different forms require different response sets. Three forms of the Inventory of Feminine Values measuring female perception of the female role are administered to women with instructions to respond in terms of their self perception, as they believe the ideal woman would respond, and as they believe a man would have the ideal woman respond. Two other forms measuring male perception of the female role are administered to male respondents with instructions to respond as the ideal woman would, and as women would have the ideal woman respond. The parallel instrument, the Inventory of Masculine Values, consists of three forms to be administered to male subjects and two to female subjects.

ADMINISTRATION

The inventories are designed for self-administration and may be given to groups or individuals. Instructions are printed on the forms. Administration time is approximately 15 minutes per scale.

SCORING

The score on the instrument represents the difference in strength of agreement to the traditional and liberal sets of items. A scoring manual gives detailed instructions for hand scoring. The instrument may also be machine scored, using IBM score sheets.

DESCRIPTION

Development. The Inventory of Feminine Values, based on an earlier instrument devised by Alexandria Botwin, was developed by the Male-Female Role Research (Maferr) Foundation to measure female and male attitudes toward the female role. A parallel instrument, the Inventory of Masculine Values, was developed to measure the attitudes of both sexes towards the male role. Originally designed as research instruments, the inventories have come to be used for teaching and demonstration purposes and as part of test batteries providing information for guidance and counseling. To meet the need for interpreting individual scores, several manuals providing normative data have been published. Manuals I, II, and III accompany the Inventory of Feminine Values and present data based on administration of the instrument to more than 1,000 women between 1955 and 1966 (Manual I), more than 1,600 women between 1967 and 1972 (Manual II), and more than 1,000 women and men since 1973 (Manual III). A separate manual is available for the Inventory of Masculine Values, presenting data based on administration of the instrument to more than 900 men and 1,500 women.

Reliability. Split-half reliability of the Inventory of Feminine Values, using the Spearman Brown prophecy formula, is estimated at .81. Split-half reliability of the Inventory of Masculine Values is estimated at .86.

Validity. Content validity of both inventories is based on the judgments of seven experts, who agreed with the categorization of the items comprising each instrument as family- (traditional) or self- (liberal) oriented. Concurrent validity of the Inventory of Feminine Values has been tested in more than 90 research studies. These studies indicate that scores on the inventory are correlated with scores on a wide variety of other tests, including the Group Embedded Figures Test (Tami, 1974), Berger's Acceptance of Self and Other Scale (Swander and Dewey, 1972), the Ego Development Sentence Completion Form (O'Conner Blumhagen, 1974), and the Shostrom Personality Orientation Inventory (1966). Concurrent validity studies of the Inventory of Masculine Values are not reported.

Norms. A variety of descriptive statistics are presented in the manuals accompanying the inventories to aid in the interpretation of group and individual scores. The data reported include means, standard deviations, quartiles and ranges; classifications of score ranges on each form as "balanced," "family-oriented" and "self-oriented" as well as percentage scoring within each classification; and the common response to each item on all forms as well as the percentage holding the common response.

SAMPLE ITEMS

1. An ambitious and responsible husband does not like his wife to work.

9. The needs of a family come before a woman's personal ambitions.

18. I would not get married if I had to give up what I really believe in order to get along with another person.

26. How I develop as a person is more important to me than what others think of me.

AVAILABILITY

The Inventories, Manuals, Instructions for Scoring and Administering, and Bibliography may be purchased from the Maferr Foundation, Inc. The instrument is copyrighted, and the author would like copies of studies using the instrument.

REFERENCES

A complete 21-page bibliography is available. Recent publications include:

Abelew, T. *Sex role attitudes, perceptual style, mathematical ability, and perceived parental child rearing attitudes in adolescents*. Unpublished doctoral dissertation, Fordham University, 1974.

O'Connor Blumhagen, G. K. *The relationship between female identity and feminism*. Unpublished doctoral dissertation, Washington University, 1974.

Riva Bartock, M. A. *An investigation of selected attitudes and personality characteristics as they relate to career commitment in college educated women*. Unpublished doctoral dissertation, University of Pittsburg, 1975.

Steinmann, A. A brief report of twenty years of cross-cultural research on male-female concepts of sex roles. In *Women in society and sex roles*. Paris: Presses Universitaires de France, in press.

Steinmann, A. Female and male concepts of sex roles: An overview of twenty years of cross-cultural research, *International Mental Health Research Newsletter*, Spring, 1976.

Steinmann, A. Studies in male-female role identification. *Psychotherapy: Theory, Research & Practice*. May 1976.

Steinmann, A., & Jurich, A. P. The effects of a sex education course on the sex role perceptions of junior high school students. *The Family Coordinator*, January 1975.

Steinmann, A., & Lenz, E. The man in your life: Personal commitment in a changing world. In R. Loring & H. Otto (Eds.), *New life options: The working woman's resource book*. McGraw-Hill Book Co., 1976.

Swander, K., & Dewey, C. *Self growth through encounter groups for women*. Unpublished doctoral dissertation, University of Florida, 1972.

PEPLAU/RUBIN SEX-ROLE TRADITIONALISM SCALE

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DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The scale is suitable for use with adults of both sexes.

INSTRUMENT FORMAT

The instrument consists of 10 items in Likert format.

ADMINISTRATION

The instrument is designed for group administration. Approximate time for completion is 5 minutes. Directions are provided with the instrument.

SCORING

The instrument is hand scored. A scoring key indicates that five items are keyed so that a high score indicates greater traditionalism: the other five items on this scale are reversed for scoring.

Sex Role Perception

DESCRIPTION

Development. The Sex Role Traditionalism Scale was developed as part of a large-scale study of college students' dating relationships. It measures beliefs about how men and women should behave in various situations and extent of agreement with traditional sex-role ideology. The scale has been used in a number of research studies.

Reliability. Coefficient alpha for the 10-item scale is reported as .83 for women (n=91) and .81 for men (n=91).

Validity. The scale has been used in other studies and was shown to correlate with other aspects of sex role orientation, such as how women react to competitive achievement situations (Peplau, 1976a), women's career plans (Peplau, 1972b), the balance of power in dating relationships, sexual attitudes and behavior among college students (Peplau, Rubin & Hill, 1977), patterns of interaction with same-sex and opposite-sex strangers (Hammen & Peplau, 1978) and values concerning love relationships expressed by lesbians (Peplau, Cochran, Rook & Padesky, 1978). These studies may be regarded as evidence of concurrent validity.

SAMPLE ITEMS

3. When a couple is going somewhere by car, it's better for the man to do most of the driving.

8. A person should marry whomever he loves regardless of social position.

AVAILABILITY

The instrument is available from the first author at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Hammen, C. L., & Peplau, L. A. Brief encounters: Impact of gender, sex-role attitudes, and partner's gender on interaction and cognition. Sex Roles, 1978, 4(1), 75-90.

Hill, C. T., Rubin, Z., & Peplau, L. A. Breakup before marriage: The end of 103 affairs. Journal of Social Issues, 1976, 32(1), 147-168.

Peplau, L. A. Impact of fear of success and sex-role attitudes on women's competitive achievement. Journal of Personality and Social Psychology, 1976, 34(4), 561-568. (a)

Peplau, L. A. Fear of success in dating couples. Sex Roles, 1976, 2, 249-258. (b)

Peplau, L. A. Power in dating relationships. In J. Freeman (Ed.), Women: A feminist perspective, (2nd edition). Palo Alto, Calif.: Mayfield, 1978.

Peplau, L. A., Cochran, S., Rook, K., & Padesky, C. Loving women: Attachment and autonomy in lesbian relationships. Journal of Social Issues, 1978, 34(3).

Peplau, L. A., Rubin, Z, & Hill, C. T. Sexual intimacy in dating couples. Journal of Social Issues, 1977, 33(2), 86-109.

PERSONALITY RESEARCH FORM (PRF) ANDRO SCALE

AUTHORS

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Personality scale

MEASUREMENT VARIABLES

Sex role perception (psychological masculinity and femininity), self-esteem

TARGET POPULATION

The scale is designed for use with secondary, postsecondary students, and adults of both sexes.

INSTRUMENT FORMAT

The scale consists of 85 items true/false format. The items, statements which a person might use to describe himself or herself, are divided into subscales: Masculinity (MASCUL, 29 items), Femininity (FEMIN, 27 items) and Self-esteem (SE, 20 items). A five-item Infrequency Scale is also included.

ADMINISTRATION

The scale is designed for group administration. It may be administered in either of two forms: the 440-item Personality Research Form (Form AA) or the 85-item Interpersonal Disposition Inventory. A separate PRF ANDRO Scale User's Manual is available.

SCORING

The MASCUL and FEMIN subscales may be scored from the full 440-item PRF or the Interpersonal Disposition Inventory (IDI). In its present 85-item form, the IDI contains (1) the MASCUL and FEMIN subscales; (2) a 20-item SELF-ESTEEM (SE) scale constructed to be as unrelated to socially desirable responding as possible; (3) five items from the PRF Infrequency scale to control for careless responding; and (4) four filler items. A computer program providing raw, standard and T-scaled scores for scoring the IDI may be obtained from the investigators at cost but should be requested only when the number of subjects tested exceeds 500.

DESCRIPTION

Development. The instrument is based on the theoretical rationale used in the development of the Bem Sex Role Inventory (BSRI, Bem, 1974) and consists of selected items from the Personality Research Form (PRF, Jackson, 1967). The rationale underlying the development of the BSRI included provisions for (a) separate Masculinity and Femininity scales, (b) items selected on the basis of sex-typed desirability (e.g., masculine characteristics being judged as more desirable for a man than for a woman), and (c) items with generally positive content. The content themes of the masculine items in the BSRI are social-intellectual ascendency, autonomy, and orientation toward risk. The content themes of the feminine items are nurturance, affiliative-expressive concerns, and self-subordination. Sixty-four items in the original PRF scale were considered to be consistent with the theoretical rationale and content themes of the Bem Masculinity and Femininity scales. On the basis of item analyses, the provisional scales were shortened to the present 29 MASCUL items (19 keyed true, 10 false) and 28 FEMIN items (17 keyed true, 10 false). A subsequent study showed that when both male and female students (n=177) rated the 56 items for sex-typed desirability the masculine items were judged as more desirable for a man than a woman and the feminine items were judged as more desirable for a woman than a man. Analysis of individual items showed that all 56 target differences were in the appropriate direction, with 53 differences significant beyond the .05 level.

Scale Independence and Reliability. The MASCUL and FEMIN subscales may be regarded as essentially orthogonal. In two large college samples, the correlations between the two subscales were -.05 and -.11 for men, and -.16 and -.24 for women. The SE scale shows a moderate and positive relation to MASCUL (.36 for men, .38 for women) but little or no relation to FEMIN (.13 for men, -.06 for women).

Despite the intentional heterogeneity of MASCUL and FEMIN contents, the internal consistency (alpha) coefficients in seven different large samples have ranged from .68 to .79 for MASCUL and from .65 to .70 for FEMIN. Estimates of the temporal stability over a three-week interval have been .89 for MASCUL, .86 for FEMIN, and .84 for SE.

Validity. Both the MASCUL and FEMIN subscales show high concurrent or convergent validity with the BSRI and the Personal Attributes Questionnaire (PAQ, Spence, Helmreich & Stapp, 1977). The convergent validity coefficients range from .42 to .65 in several separate studies and all are highly significant ($p < .01$). Correlations with measures of socially desirability range from .00 to .29, indicating that social desirability contributes little to variations in PRF ANDRO scores. Data are also provided showing that MASCUL and FEMIN scores are essentially independent of intellectual functioning.

The manual also provides data on the Self-Esteem (SE) Scale. Correlations between the SE scale and the Marlowe-Crown scale are reported at .12 for men and .30 for women, indicating little correlation between SE and social desirability. Alpha coefficients for the SE scale have ranged from .79 to .84 and show high internal consistency. . A principal components analysis of the SE scale items has yielded four interpretable factors. Factor One addresses general self-confidence, whereas Factors Two through Four concern self-esteem in emotional, sexual and interpersonal areas. Some evidence of convergent validity is provided by a psychotherapy study in which SE scale scores of community mental health clinic outpatients correlated significantly with therapists' ratings of patients' current adjustment as measured by the Current Adjustment Rating Scale or CARS. Correlations between patients' SE scores and their self-ratings on the CARS were even higher.

Norms. Normative data and results of tests for sex differences in the two college samples are presented for the PRF ANDRO Masculinity and Femininity scales when scored from the IDI and from the full PRF. In both samples, men exceeded women on the Masculinity scale (Sample 1 Men: mean = 16.70, standard deviation = 4.33, Women: mean = 12.86, standard deviation = 4.76; Sample 2 Men: mean = 16.18, standard deviation = 4.78, Women: mean = 11.86, standard deviation = 4.84), and women exceeded men on the Femininity scale (Sample 1 Women: mean = 17.90, standard deviation = 3.50, Men: mean = 14.29, standard deviation = 3.59; Sample 2 Women: mean = 18.37, standard deviation = 3.60, Men: mean = 14.31, standard deviation = 3.57). Analyses of individual items showed that 83.9% of the items had significant ($p < .05$) differences in the expected direction with no items showing significance in the opposite direction.

The PRF ANDRO Scale Manual also presents normative data for a total of 20 samples which include a variety of clinical and special populations.

Additional Information. Split medians were performed on the distribution of scores, sexes combined, on the Masculinity and Femininity scales. Scores of 15 or higher on the Masculinity scale and 17 or higher on the Femininity scale were designated as high. Scores of 14 or lower and 16 or lower on the Masculinity and Femininity scales respectively were designated as low. Four sex role categories were created from these designations: (a) androgynous (high masculinity/high femininity), (b) masculine typed (high masculinity/low femininity), (c) feminine typed (low masculinity/high femininity), and (d) indeterminate (low on both). Applying these classifications to the two samples, investigators have generalized that one of every two persons is appropriately sex typed, one in five is androgynous, one in five is indeterminate, and only one in 10 is crosstyped. The investigators suggest further that since PRF ANDRO responses may be scored from PRF answer sheets, results of prior studies using the PRF may be reanalyzed in terms of the four sex role categories identified in this investigation.

SAMPLE ITEMS

IDI, Form C

On the following pages you will find a series of statements which a person might use to describe himself. Read each statement and decide whether or not it describes you.

3. I try to control others rather than permit them to control me.
11. I will keep working on a problem after others have given up.
15. I don't care if my clothes are unstylish, as long as I like them.
70. Once in a while I enjoy acting as if I were tipsy.

AVAILABILITY

The PRF is copyrighted and is available from the authors at no charge. The IDI is also available from the authors and may be used for research purposes only.

REFERENCES

Berzins, J. I., Welling, M. A., & Wetter, R.E. A new measure of psychological androgyny based on the Personality Research Form. Journal of Consulting and Clinical Psychology, 1978, 46, 126-138.

Gayton, W. F., Havu, G. F., Ozmon, K. L., & Tavormina, J. A comparison of the Bem Sex-Role Inventory and the PRF ANDRO Scale. Journal of Personality Assessment, 1977, 41, 619-621.

Kelly, J. A., & Worell, L. Parent behaviors related to masculine, feminine, and androgynous sex role oreintations. Journal of Consulting and Clinical Psychology, 1976, 44, 843-851.

Kelly, J. A., & Worell, J. New formulations of sex roles and androgyny: A critical review. Journal of Consulting and Clinical Psychology, 1977, 45, 1101-1115.

QUESTIONNAIRE ON ERADICATING SEXISM IN VOCATIONAL EDUCATION

AUTHOR

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Career Development Center
Williamsport Area Community College
1005 West Third Street
Williamsport, Pennsylvania 17701

DATE

1971

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use by college students and faculty of both sexes.

INSTRUMENT FORMAT

The questionnaire contains 18 statements in Likert-type format. In addition there are separate short sections of demographic questions for students and for faculty.

ADMINISTRATION

The instrument is designed as a mail-out questionnaire and can be self-administered. Directions are printed on the form. Approximate time for completion is 5 minutes.

SCORING

The items are scored so that strong endorsement of a traditional sex role is scored 5 points and strong endorsement of a nontraditional role is scored 1 point. An individual score consists of the sum of the scores for each item. Scoring directions and key are given in the paper cited in the references (Weitz, 1977).

DESCRIPTION

Development. The instrument was developed as part of a project to identify the nature and extent of sex role stereotyping on one post-secondary vocational education institution by surveying all faculty, all full time female students and a sample of full time male students.

The project was funded by the Pennsylvania Department of Education, Bureau of Vocational Education, Research Coordinating Unit. The 18 items in the questionnaire were designed on an *a priori* basis to measure five attitudinal areas: career options, family role, aptitudes and traits, leadership and authority, and education.

Validity. Some evidence of predictive validity is provided by the results of the one study in which the instrument was used. The instrument was administered to a sample of 322 vocational education students, including 119 males and 39 females enrolled in traditionally male programs, 19 males and 57 females enrolled in traditionally female programs and 9 males and 79 females enrolled in traditionally mixed programs. The instrument was also administered to faculty. A variety of results were obtained, based on the use of t tests in comparison of male and female students, male and female faculty, traditional and nontraditional students of the same sex, and faculty and students of the same sex. Among the results were the findings that females are less traditional in attitude than males, that students enrolled in nontraditional programs are less traditional in attitude than students enrolled in traditional programs, that female faculty held less traditional attitudes than male faculty. These findings may be considered evidence of predictive validity as measured by the capacity of the instrument to detect significant differences between groups.

SAMPLE ITEMS

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

1. A college degree is a waste of money for women if they never expect to use it through gainful employment.

6. Women are best suited for work which is involved with helping others.

10. A woman should not return to work or school if her husband objects.

13. Full time outdoor jobs are unsuitable for women.

17. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

AVAILABILITY

The instrument is available through:

ERIC Document Service
P.O. Box 190
Arlington, Virginia 22210

The author would like copies of studies using the instrument.

REFERENCES

Weitz, A.D. Eradicating sexism in vocational education. Final Report, Bureau of Occupational and Adult Education, Pennsylvania Research Coordinating Unit for Vocational Education, November 1977. (ED 147 564)

QUESTIONNAIRE ON THE OCCUPATIONAL STATUS OF WOMEN (QOSW)

AUTHORS

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Rutgers University
New Brunswick, New Jersey 08903

DATE DEVELOPED

1970

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes and factual knowledge regarding the occupational status of women

TARGET POPULATION

The instrument was designed for use with counselors and counselor-educators of both sexes.

INSTRUMENT FORMAT

The instrument consists of 50 items divided into two sections. Twenty-five of the items are statements relating to factual information about the changing status of women, and 25 items examine the extent to which misinformation and negative attitudes about women and work prevail among counselors and counselor-educators. The items are in true/false (agree/disagree) format.

Sex Role Perception

ADMINISTRATION

The questionnaire was designed to be distributed by mail and is also suitable for group administration. Directions are provided on the accompanying answer sheet. Approximate time for completion is 5 minutes.

SCORING

The instrument was designed for hand scoring. A key is available for ranking the attitudinal items as positive or negative and the factual items as true or false.

DESCRIPTION

Development. Approximately 100 statements and questions expressing facts and attitudes toward employment of women were pooled from two graduate classes in counselor-education. These statements were judged by a group of advanced students and rated as factual or attitudinal. The list was also submitted to two graduate classes, one in counselor-education and one in vocational-technical education. These students rated each item for clarity of expression. Acceptable items based on the judgments of all groups numbered 65. From these, the authors of the questionnaire, considering variety of content, selected 25 factual and 25 attitudinal items. The QOSW was administered to a total of 1,205 subjects between 1970 and 1974. Subjects fall generally into two major categories: (1) counselors and related professionals; and (2) students at various levels of education. Distributions of the sample by sex and additional technical information are available from the senior author.

Reliability. Internal consistency was assessed by computing point-biserial correlation coefficients between each item and the total for its scale. It was determined that six items on each scale fell below the usually recommended item-total correlation of .20. The senior author indicates that these items will be carefully examined and possibly replaced in further development of the instrument. Reliability of the QOSW was estimated by the Kuder-Richardson Formula 20 applied to the total sample of 1,205 subjects. Reliability estimates were computed for each scale: Factual, r = .64; Attitudinal, r = .72; and Total, r = .77.

Validity. Some evidence of construct validity can be inferred from the results of test administration among different groups. As might be expected, groups of counselors and professionals generally scored higher on both scales than non-professionals, and females scored higher than males in most sample groups.

Additional Information. Reliability analysis by the Rasch model was planned at the time of this writing and will be available from the senior author.

Sex Role Perception

SAMPLE ITEMS

Factual Items

T = True
F = False

1. More than half of the women working in the U.S. today earn less than $5,000 per year.

46. One area in which women have gained equality is college teaching; they are just as likely to be full professors as are men.

Attitudinal Items

A = Agree
D = Disagree

2. No man really prefers to have a female boss.

5. Vocational counseling is much more difficult with high school girls than it is with boys.

AVAILABILITY

The instrument, scoring directions, and a brief manuscript are available at duplicating cost plus postage from the senior author, Dr. William Bingham. They are also available through:

Tests in Microfiche
ETS Test Collection
Educational Testing Service
Princeton, New Jersey 08540

REFERENCES

Bingham, W. C., & House, E. W. Counselors view women and work: Accuracy of information. Vocational Guidance Quarterly, 1973, 21, 262-268.

Bingham, W. C., & House, E. W. Counselors' attitudes toward women and work. Vocational Guidance Quarterly, 1973, 22, 16-23.

Bingham, W. C., & House, E. W. ACES members' attitudes toward women and work. Counselor Education and Supervision, 1975, 14, 204-214.

CROSS REFERENCES

ETS Test Collection. Princeton, New Jersey: Educational Testing Service.

A SCALE FOR THE MEASUREMENT OF ATTITUDES TOWARD THE SOCIAL, EDUCATIONAL, AND ECONOMIC ROLES OF WOMEN

AUTHOR

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was developed for use with high school business teachers, their students, and the parents of the business students.

INSTRUMENT FORMAT

This instrument consists of 35 statements in Likert format. Items address the social, educational and economic roles of women in society.

ADMINISTRATION

The instrument is designed for group administration. Administration directions are printed on the instrument. The time required to complete the questionnaire is approximately 15 minutes.

SCORING

The scale is hand scored. The scoring key is available from the author.

DESCRIPTION

Development. Ninety-five statements expressing attitudes toward the role of women in society were culled from a review of historical and current literature. These statements were judged by a group of professional men and women. As a result of this review, a 50-item version of the scale was developed. Factor analysis and discriminant analysis were performed on the data resulting from administration of the 50-item scale to 100 high school seniors. These analyses led to the development of a final scale consisting of 35 statements showing internal consistency and discriminating between male and female respondents. Of these 35 statements, 15 had been judged unfavorable towards women's rights and 20 had been judged favorable.

Reliability. In order to assess the internal reliability of the scale, a correlation matrix was generated as part of the factor analysis of the data contributed by 100 high school students. Items retained in the final scale correlate .50 or better with the total scale score.

Validity. Some evidence of predictive validity is provided by the finding that the instrument successfully discriminated between groups in a survey of business teachers, business students and parents of business students at the high school level. Results of an analysis of variance indicated that attitudes towards the role of women were significantly related to sex, educational level and status of the respondent as student, teacher or parent. The instrument was also completed by a comparison group of professional women who were members of organizations promoting the advancement of women. As expected, the mean score achieved by this group was substantially higher than the mean scores of teachers, parents or students.

SAMPLE ITEMS

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly Disagree

25. Some women should be elected to Congress

26. Women in supervisory positions have more difficulty dealing with subordinates than do males.

27. Women have less need than men to achieve in the working world.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage or it may be reproduced from the Journal of Business Education (Carr, 1976) cited in the references. The author would like copies of studies using the instrument.

REFERENCES

Arnold, V. D. Attitudes of high school business teachers, business students, and parents of female business students toward the social, educational and economic roles of women. Unpublished doctoral dissertation, University of Florida, 1974.

Arnold, V. D. Developing business education programs with equal opportunity for both sexes. NABTE Review, 1978, 5, 23-15.

Carr, G. D. Attitude of business teachers toward women. Journal of Business Education, February 1976, 216-217.

West, S. Attitudes of high school teachers, principals, guidance counselors, librarians, and teacher educators toward the social, educational, and economic roles of women. Unpublished doctoral dissertation, University of Florida, 1975.

SEX-ROLE ATTITUDE ITEMS

AUTHOR

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University of Michigan
Ann Arbor, Michigan 48109

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The items were designed for use with adult women.

INSTRUMENT FORMAT

The 13 items in agree/disagree format are drawn from five different surveys. Each item supports a traditional norm or belief about sex appropriate roles.

ADMINISTRATION

The items are suitable for group administration. The user should develop administration instructions. Approximately 10 minutes is required for administration.

SCORING

Since these items have not been administered as an evaluation instrument *per se*, scoring instructions are not provided.

DESCRIPTION

Development. In a study designed to investigate changes in American women's sex-role attitudes, Mason, Czajka, and Arber (1976) analyzed data from five sample surveys which had been conducted between 1964 and 1974. The sample surveys were: (1) 1961 NORC College Seniors Study, National Opinion Research Center, University of Chicago, administered in 1964; (2) 1970 National Fertility Study, Norman B. Ryder and Charles F. Westoff, Institute for Survey Research, Temple University; (3) 1970 Fifteen Year Follow-up Survey, Bruce Eckland, University of North Carolina; (4) 1973 Marriage Cohort Survey, Research Triangle Institute of North Carolina; and (5) 1974 Detroit Area Study, Institute for Social Research, University of Michigan. Several statistical techniques were used to insure the comparability among the samples before making inferences about attitude change. Furthermore, the researchers could only compare items that were the same from one survey to the next. A total of 13 questions about attitudes were identified for analysis, and these questions represent items which overlapped across at least two surveys. Since the 13 items were not used as an integral assessment instrument, information on their reliability and validity, other than content validity, is not available.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

1. A man can make long-range plans for his life, but a woman has to take things as they come.

7. A preschool child is likely to suffer if his mother works.

13. A woman can live a full and happy life without marrying.

AVAILABILITY

The survey items are published in the report by Brown (1976) cited in the references. This publication is available from:

National Institute of Mental Health
5600 Fishers Lane
Rockville, Maryland 20852

REFERENCES

Brown, B. S. How women see their roles: A change in attitudes. New Dimensions in Mental Health. September 1976, U.S. Department of Health, Education, and Welfare, Public Health Service, Alcohol, Drug Abuse and Mental Health. (DHEW Publication No. (ADM) 76-343)

Mason, K. O. Studying change in the sex-role definitions via attitude data. Social Statistics Section Proceedings of the American Statistical Association, 1973, 138-141.

Mason, K. O., Czajka, J. L., & Arber, S. Change in U.S. women's sex-role attitudes, 1964-1974. Final Report of Grant No. R01-MH25271 to the National Institute of Mental Health.

Mason, K. O., Czajka, J. L., & Arber, S. Change in women's sex role attitudes, 1964-1974. American Sociological Review, 1976, 41, 573-596.

SEX ROLE ATTITUDE SCALE (SRA)

AUTHORS

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DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with college students of both sexes. It has been used with persons of all ages, from elementary school age through adults.

INSTRUMENT FORMAT

The instrument consists of 32 statements in Likert format.

ADMINISTRATION

The scale may be individually or group administered. Directions do not accompany the instrument in its currently available format. Subjects are to mark a scale indicating their degree of agreement or disagreement with each statement.

SCORING

The scale may be machine or hand scored. Scoring instructions and key are not provided. However, some items are stated in the "modern" direction and some in the "traditional" direction to eliminate agree-disagree response sets. An individual score is computed by summing points across items.

DESCRIPTION

Development. The Sex Role Attitude Scale (SRA) was designed to tap "modern" to "traditional" sex role attitudes in terms of four components: (1) familial roles of males and females, (2) extrafamilial roles, (3) stereotypes of male and female characteristics and behaviors, and (4) social change as related to sex roles.

Reliability. Reliability of the SRA scale was examined through a Likert-scaling item analysis. Resulting t-tests showed that 31 of the 32 items discriminated between the top and bottom quartiles of the sample with associated probabilities of .001 or less. Internal consistency, as measured by coefficient alpha after deletion of the one non-discriminating item, was .88. These analyses were based on data contributed by 480 college students, including 225 males and 255 females.

Validity. Evidence of the criterion validity of the instrument is provided by an analysis of the data contributed by the 480 college students. These data show that males and females differed on 72% of the items, with males giving more traditional responses than females. In addition, analysis of group differences by content area showed that male and female respondents were least divergent in their perception of macrolevel social change issues (where both were most "modern") and familial issues (where both were most "traditional"). Males and females differed most in attitudes toward extrafamilial roles of women and in stereotypes of male and female characteristics.

SAMPLE ITEMS

1 = Agree strongly
2 = Agree
3 = Neutral
4 = Disagree
5 = Disagree strongly

I Familial Roles

3. Whoever is the better wage-earner, wife or husband, should be the breadwinner.

II Extrafamilial Roles

10. To a great extent, women are less able to make a career commitment than men are.

III Stereotypes of Male/Female Nature & Behavior

17. Women really like being dependent on men.

IV Social Change as Related to Sex Role

28. Men's clubs and lodges should be required to admit women.

AVAILABILITY

The instrument is available at duplicating cost plus postage from the first author, Dr. Marie Osmond. This author would like copies of studies using the instrument.

REFERENCES

Osmond, M. W., & Martin, P. Y. Sex and sexism: A comparison of male and female sex-role attitudes. Journal of Marriage and the Family, 1975, 37 (4), 744-758.

THE SEX-ROLE IDENTITY SCALE

AUTHOR

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Sex Role Perception

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role identity

TARGET POPULATION

The instrument is designed to be used with junior high through senior high school students of both sexes.

INSTRUMENT FORMAT

The instrument is a 32-item scale in a semantic differential format. Each bipolar adjective pair contains one adjective or phrase which represents a stereotypic masculine attribute and one representing a stereotypic feminine attribute.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 15 minutes for completion. Directions accompany the instrument.

SCORING

An individual's total score is determined by two subscores: (1) the sum of the scale values for the 16 items representing a masculine stereotypic configuration, and (2) the sum of the scale values for the 16 items representing a feminine stereotypic configuration. A scoring key of scale values for each item is available from the author.

DESCRIPTION

Development. The original instrument consisted of 115 items with bipolar pairs of adjectives selected from the literature. The majority of these items (92) were taken from Broverman's Sex-Role Questionnaire and Osgood's Potency Factor.

Two administrations of the 115-item instrument were conducted using two samples of eighth- and twelfth-grade students. The results of factor analyses conducted on the responses from the two administrations reduced the number of items to be considered for inclusion in the final instrument to 34, 17 selected to measure the masculine stereotypic configuration and 17 measuring the feminine stereotypic configuration. In producing the final instrument, two additional items were eliminated to increase reliability indices. The final instrument contains 32 items.

Reliability. Reliability data were derived through test-retest procedures with a three-week interval between the two administrations of the instrument, first in its 34-item form, then in its 32-item final revision. The sample used for these administrations consisted of 38 twelfth-grade and 48 eighth-grade girls. Product moment correlation coefficients were computed for each scale configuration for both grade levels. Reliability coefficients for the 32-item scale are .75 (grade 12, feminine configuration), .73 (grade 12, masculine configuration), .87 (grade 8, feminine configuration), .74 (grade 8, masculine configuration).

Validity. Some evidence of predictive validity is provided by a study of the relationships between occupational choice, strength of career commitment and self concept as measured by the Sex Role Identity Scale. As predicted, adolescent women making atypical occupation choices were stronger in career commitment and more masculine in self perception than those making typical career choices. These data may be considered evidence of the ability of the scale to discriminate between groups in the predicted direction.

SAMPLE ITEMS

Adjective Checklist

Light	___:___:___:___:___:___:___	Heavy
Very strong personality	___:___:___:___:___:___:___	Very weak personality
Anxious to please	___:___:___:___:___:___:___	Doesn't care about pleasing
Knows the way of the world	___:___:___:___:___:___:___	Does not know the way of the world
Outgoing	___:___:___:___:___:___:___	Shy
Retiring	___:___:___:___:___:___:___	Forward

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Kotcher, E. V. & Gellman, E. S. Identifying young women who maintain early decisions to enter careers in science and technology. Final report. National Science Foundation Grant No. GY-11313. Hempstead, New York: Hofstra University, 1975.

SEX ROLE IDEOLOGY AND FAMILY ORIENTATION SCALE (SRIFOS)

AUTHORS

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Porter Hall 223
Pittsburgh, Pennsylvania 15213

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Attitudes toward sex roles, attitudes toward family as an institution

TARGET POPULATION

The instrument is designed for use with high school students of both sexes.

INSTRUMENT FORMAT

The scale consists of 37 Likert-type items to be rated on a 5-point scale ranging from 'strongly agree' to 'strongly disagree'. Nine items relate to a component labeled Sex Role Ideology, and another five items tap attitudes toward the family as an institution.

ADMINISTRATION

The scale is designed for self-administration and can be given to individuals or groups. Administration and scoring descriptions are available in Angrist, Mickelsen and Penna (1976 and 1977) cited in the references.

SCORING

The instrument was designed primarily for research purposes and is intended to yield group scores. Although no specific information on scoring is given in the articles, it appears that the scale can be hand or machine scored.

Sex Role Perception

DESCRIPTION

Development. The Sex Role Ideology and Family Orientation Scale (SRIFOS) emerged in conjunction with the development, tryout, and evaluation of four innovative minicourses on the topic of family life. The course authors were interested in examining sex differences in sex role conceptions and family orientation and their relationship to selected demographic characteristics. Previous studies had related traditional sexist values to demographic characteristics such as maleness, low SES, and non-college orientation. The authors wanted to study similar relationships. The SRIFOS was designed to collect the relevant attitudinal data. Demographic data were also gathered. Data were collected in the spring of 1975 from 529 students in grades 9 to 12, attending four high schools representing four distinct socioeconomic groups.

The purpose of this scale is to determine high school students' attitudes toward sex roles and toward the family as an institution. The scale can be used to evaluate aspects of the success of a program designed to reduce traditional stereotypical attitudes.

Validity. An examination of the items reveals at face value their relation to their intended content of sex roles and family. More specifically, some of the sex role items were drawn from an earlier work by Hoffman (1963). Factor analysis of these items yielded nine items that loaded at least .40 on the principal component subsequently named Sex Role Ideology.

Results of the study substantiated some basic theoretical and research-based expectations. Scores on the Sex Role Ideology scale showed generally that males obtain more sexist scores than females, blacks more than whites. Also more sexist scores are shown by persons with fathers having a high school education or less or mothers who are full-time homemakers, and persons who are relatively lower academically. Males from the school with the highest academic and SES rating obtained less sexist scores than other males. Females from the inner city and lower middle class schools tended to obtain more sexist scores as did females with less educated fathers and homemaker mothers. Contrary to expectations, however, only one of five family orientation items is significantly correlated (.25, $p.< 001$) to sex role attitudes for men. These items seem to influence women's sex role conceptions more. The reason for this discrepancy may be that the scale is biased toward female-gender-tied responsibilities.

Additional Information. An article describing the instrument presents mean scores on sex role ideology for selected demographic variables, factor loadings of the sex role ideology items, partial correlations between sex role ideology scores and the five family orientation items, and regression results for females and males on sex role ideology.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Undecided
4 = Disagree
5 = Strongly disagree

4. A wife should work only if there is a definite economic need.

8. Americans should limit their families to two children.

23. Parents should advise their sons and daughters how to behave on dates.

30. A mother's main task is to provide for the emotional well being of her husband and children.

1 = Yes
2 = Undecided
3 = No

33. I prefer informal dates such as riding bicycles to formal dates such as going out to dinner.

36. I will move far away from relatives once I can support myself and live on my own.

AVAILABILITY

The instrument is available from authors at duplicating cost plus postage.

REFERENCES

Angrist, S. S., Mickelsen, R., & Penna, A. N. Development and evaluation of family life courses. Theory and Research in Social Education, 1976, 4, 57-79.

Angrist, S. S., Mickelsen, R., & Penna, A. N. Sex differences in sex-role conceptions and family orientation of high school students. Journal of Youth and Adolescence, 1977, 6, 179-186.

Hoffman, L. W. Parental power relations and the division of household tasks. In F. I. Nye & L. W. Hoffman (Eds.), The Employed Mother in America. Chicago: Rand-McNally, 1963.

SEX ROLE LEARNING INDEX (SERLI)

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DATE DEVELOPED

1978

INSTRUMENT TYPE

Q sort and picture choice

MEASUREMENT VARIABLES

Sex role perception, awareness of sex role stereotypes, and preferences for sex-typed toys, activities, and roles.

TARGET POPULATION

The instrument is designed to be used with preschool children.

INSTRUMENT FORMAT

The instrument consists of three sets of cards displaying either child figures, adult figures, or objects. Pictures are balanced for size, scale, complexity, and shading. The child and adult figures sections contain ten items each, half stereotyped as masculine and half as feminine. The objects section contains 20 drawings of objects representing the activities and roles depicted in the child and adult figures section. Separate forms have been developed for boys and girls. Items in the two forms are identical except that the boys' form depicts only male figures engaged in the various activities and roles, while the girls' form depicts only female figures.

ADMINISTRATION

The instrument is designed for individual administration.

Object identification. To begin, the child is shown pictures of objects and sorts these pictures into items appropriate for boys and items appropriate for girls.

Child figures. The child is then shown the Child Figures section, with the figures that correspond to the child's sex depicted as engaged in sex-appropriate or sex-inappropriate activity. The experimenter points to and names each item, and then asks the child which activity he or she would like to do best. The child's choice is removed from the array and the procedure is repeated until all of the items are removed. The order of the child's choices is recorded.

Adult figures. The Adult Figures section is administered using the same procedure, except that the experimenter asks the child which of the activities he or she would like to do when grown up.

A manual which includes a description of administration procedures is available. Testing time is approximately ten minutes, and pilot studies have shown that the order in which the three SERLI sections are given does not significantly affect SERLI scores.

SCORING

The instrument yields scores in three separate areas. The first area is Sex Role Discrimination (SRD) which is described as the child's awareness of sex role stereotypes. This is operationally defined in the SERLI as the degree to which the child's classification of items depicting various objects agrees with sex role stereotypes of those objects. The second area is Sex Role Preference (SRP) which is described as the child's desire to adhere to sex role stereotypes. This is operationally defined by the order in which the child chooses items stereotyped as appropriate for the child's sex. The third area is Sex Role Confirmation (SRC) which is described as the desire to adhere to one's own conceptions of what is sex appropriate. This is operationally defined by the order in which the child chooses items previously defined by the child as sex appropriate. The distinction between SRP and SRC reflects the possibility that the child is adhering to his or her conceptions of what is sex appropriate but that these conceptions may not conform to the social stereotypes. If the child's original classification of items agrees with sex role stereotypes, SRP and SRC will be equal.

The SERLI is scored using scoring tables based on the order of the child's choices. Six scale scores are calculated. These are Own Sex SRD based on correct identification of objects appropriate for own sex and Opposite Sex SRD based on correct identification of objects appropriate for the opposite sex, SRP and SRC using Child Figures and SRP and SRC using Adult Figures.

DESCRIPTION

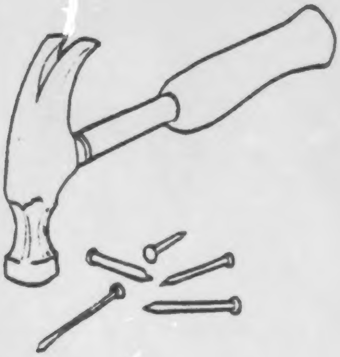
Development. The Sex Role Learning Index (SERLI) measures children's awareness of sex-role stereotypes and relative preference for sex-typed toys, activities, and roles. The goals in the development of the Sex Role Learning Index (SERLI) were to (1) compare children's preferences to both sex role stereotypes and each child's conception of what is sex appropriate; (2) distinguish between child and adult figures participating in the activities and roles depicted in the test items; and (3) use a probability scoring system based on the order of the child's choices. More generally, the SERLI was developed to score children's preferences according to both the child's point of view and cultural sex role stereotypes, with items selected that become progressively more stereotyped in early childhood, such as baseball and bat, boxing gloves, table place setting and comb and mirror. These items were chosen on the basis of content analyses of previous measures of sex role acquisition, as well as pilot studies with an initial pool of 200 items. Items were selected that offered a range of activities and roles that are common in children's play constructions and stories and that children view as relatively desirable. In drawing the items for each section, the artist attempted to balance for size, scale, complexity and shading.

Reliability. Test-retest reliability, measured with 18 boys and 18 girls over a three-week interval, ranged from .51 ($p < .05$) to .90 ($p < .001$) for the six scales when testing was by a same sex experimenter. Testing by an opposite sex experimenter yielded lower correlations which ranged from -.17 to .63 ($p < .01$).

Validity. Some evidence of concurrent validity is provided by the correlational studies conducted with the SERLI. Boys' scores on the SERLI were significantly correlated with the IT Scale for Children (Brown, 1965) but girls' scores were not. In addition, SERLI scales were significantly related to chronological age (CA), mental age (MA), and IQ. SRD was significantly correlated with CA in boys (p .001) and CA and MA in girls ($p < .001$). Boys' scores in the adult figures section correlated significantly with MA ($p < .05$) and IQ ($p < .01$), whereas girls' scores correlated significantly with CA ($p < .01$).

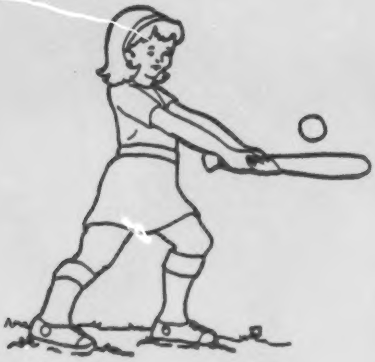
SAMPLE ITEMS

Objects Section

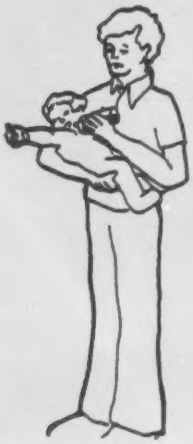


Sex Role Perception

Child Figures Section



Adult Figures Section



(Copyright 1975. Craig Edelbrock and Alan I. Sugawara)

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Edelbrock, C., & Sugawara, A. I. Acquisition of sex-typed preferences in preschool-aged children. Developmental Psychology, 1978, 14(6).

SEX-ROLE PERCEPTIONS INTERVIEW

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DATE DEVELOPED

1977

INSTRUMENT TYPE

Interview schedule

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed to be used with kindergarten children of both sexes.

INSTRUMENT FORMAT

The interview consists of three parts with a total of 11 items. Part I contains five items related to the school environment; Part II contains four items, each to be asked three times, related to out-of-school activities and adult activities; Part III contains two items relating to perceived intelligence of males and females. Each item consists of one or two open-ended questions plus a "why" question. The interviewer records the child's answers on a response form.

ADMINISTRATION

The interviews are to be conducted individually. The approximate time for each interview is 15 minutes. Additional time may be required, since interviewers are directed to use their discretion in probing as far as necessary to clarify the child's responses. Instructions for the interview are printed on the instrument.

SCORING

Analysis of interview responses focuses on the child's view of sex-roles that are appropriate for boys, girls, men, and women, and on the reasoning behind the child's attitude. Responses collected from a group of children are examined for differences between boys' responses and girls' responses on the questions relating to the sex roles of children and adults. Response categories are provided in analyzing the interviews.

DESCRIPTION

Development. The interview was designed to explore kindergarten children's perceptions of the sex roles of children and adults and also to discover the children's explanations for their attitudes. The interview questions were pretested and standardized. The authors administered the interview to 60 preschool students.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

Part I

1. A. When they're in school, who learns faster, boys or girls, or are they the same?

   B. Why do you think so?

Part II

7. A. What do boys do when they're not in school?

   B. Do girls do that, too?

   C. Why do you think girls don't do that?

Part III

10. Who is smarter, mommies or daddies, or are they the same?

AVAILABILITY

This instrument is available from the authors at duplicating cost plus postage. The senior author would like copies of studies using the instrument.

REFERENCES

Repetti, R. L., & Dederick, J. G. Kindergarteners' perceptions of children's and adults' sex roles. Paper presented at the Annual Convention of the Eastern Educational Research Association, Williamsburg, Virginia, March 1978.

SEX ROLE PREFERENCE QUESTIONNAIRE

AUTHOR

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University of Kansas
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DATE

1971

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role preferences

TARGET POPULATION

The instrument is designed for students of both sexes in grades 6 to 9.

INSTRUMENT FORMAT

The instrument consists of 25 questions in Likert format, measuring preference for masculine and feminine areas of interest and activities. There are 13 items in the masculine preference scale and 12 items in the feminine preference scale.

ADMINISTRATION

The instrument is designed for group administration. Instructions are printed on the instrument. Estimated completion time is 10 minutes.

SCORING

The instrument is hand scored. Instructions for scoring are not provided. However, the report accompanying the instrument indicates that a total score and Masculine and Feminine Scale scores are computed by summing points over individual items.

DESCRIPTION

Development. The instrument was designed to permit independent assessment of masculine and feminine preferences, so that the extent to which the two are opposites could be empirically tested. An initial form consisting of 42 items was administered to a field test sample of 64 sixth graders. Items were selected for the final version of the scale on the basis of correlation with total score and discrimination between male and female subjects. A subsequent administration of the final scale of 25 items to 235 sixth- and ninth-grade students provided data indicating that the masculine and feminine preference scales are not correlated.

Reliability. Test-retest procedures were used to establish data on the reliability of the instrument. The instrument was administered twice, with a six-month interval between administrations to sixth-grade students. Test-retest reliabilities for boys are reported as .53 on the masculine scale and .52 on the feminine scale and for girls, as .80 on the masculine scale and .52 on the feminine scale.

Validity. The scale discriminates between male and female respondents in the predicted direction. However, the results of two criterion validity studies in which the scale was expected to predict children's motivation and effort on sex typed tasks are inconclusive.

SAMPLE ITEMS

1. How interesting do you think boy's books are?

5	4	3	2	1
Very interesting	Interesting	Fairly interesting	A little bit interesting	not interesting

9. How much fun do you think girls' games are?

5	4	3	2	1
Great fun	A lot of fun	Some fun	A little fun	No fun

AVAILABILITY

The instrument and accompanying technical report are available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Stein, A. H. The effects of sex role standards for achievement and sex role preference on the determinants of achievement motivation. Developmental Psychology, 1971, 4. 219-231.

Stein, H. A., Pohly, S. R., & Mueller, E. The influence of masculine, feminine, and neutral tasks on children's achievement behavior, expectancies of success, and attainment values. Child Development, 1971, 42. 195-207.

SEX ROLE RIGIDITY SCALE (SRRS)
(SPANISH TRANSLATION)

AUTHOR

J. O. Cole

Spanish translation by:
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Parada 23
Santurce
Puerto Rico 00910

DATE DEVELOPED

1974
Spanish translation, 1977

INSTRUMENT TYPE

Attitude questionnaire

MEASUREMENT VARIABLE

Attitude toward sex roles

TARGET POPULATION

The instrument is designed for college students and adults of both sexes. The Spanish version was intended for use with female elementary school teachers.

INSTRUMENT FORMAT

The original English version of the instrument consists of 34 Likert-type items that tap different areas of sex role behavior. The Spanish version of the scale consists of 30 items, half worded positively and half negatively. On both versions, subjects respond on a 6-point scale from 'In Complete Agreement' (Completamente de acuerdo) to 'Totally Disagree' (Completamente en desacuerdo).

The Spanish version is included in an opinion questionnaire (Cuestionario de Opinion - Patrones Culturales en el Salon de Clases) that also contains a demographic survey and an 18-item Cultural Patterns Scale tapping teacher expectations of student classroom behavior.

ADMINISTRATION

The instrument may be administered to groups or to individuals. Directions are printed on the form. Administration time is approximately 15 minutes.

SCORING

The instrument is hand-scored. An individual score consists of the sum of the values assigned to the responses to each item. Scores range from 30 to 180 points, with a high score indicating more stereotyped views. A coding guide and scoring instructions are provided for the Spanish version.

DESCRIPTION

Development. The Sex Role Rigidity Scale (SRRS) is intended to measure the extent to which individuals adhere to traditional expectations of sex role behavior. The scale was designed to obtain information related to different areas of sex role behavior, such as the man's involvement in household tasks, the woman's need to maintain virginity, the man's intellectual capacities as opposed to those of women, and other sex-role stereotypes.

The scale was originally developed by J. O. Cole in 1974. The Spanish translation of the instrument was done simultaneously by two bilingual judges, and the final version was reviewed by three bilingual judges.

Reliability. The internal reliability of the English version of the SRRS, with a sample of 204 college students, yielded an alpha coefficient of .94. The same test using 52 minority students yielded a coefficient of .90. For the 30-item Spanish version, coefficient alpha for a sample of 57 Puerto Rican women was .90. In another reliability test with 13 subjects, a test-retest Pearson Product Moment reliability coefficient was computed at .97 ($p < .001$).

Validity. Some evidence of the validity of the Spanish version of the instrument is provided by the results of one study in which it was used. The instrument was used to measure the effectiveness of a set of modules designed to change stereotyped conceptions and views of elementary teachers regarding sex roles. The modules were developed by the Project for the Development of Awareness Stereotyping Modules for Elementary School Teachers, conducted by the Puerto Rican Commission for the Improvement of Women's Rights for the Women's Educational Equity Act Program. (The modules and the other assessment instruments developed by the project are described in the Bibliography of Additional Instruments.) The SRRS was administered to four groups, only two of which were exposed to the modules. The sample consisted of 128 female elementary school teachers in urban (73%) and rural (27%) Puerto Rico. An analysis of variance yielded significant differences between groups which had and had not been exposed to the modules. Rural and urban teachers did not differ significantly in any of the measures obtained.

This study provides some evidence of the instruments' predictive validity with a Spanish-speaking population by discriminating between experimental and control groups in the expected direction.

Sex Role Perception

SAMPLE ITEMS

(The English version presented below represents a back-translation of the Spanish instrument as done by the Puerto Rican Commission for the Improvement of Women's Rights.)

1 = In Complete Agreement (Completamenta de acuerdo)
2 = Largely in Agreement (Bastante de acuerdo)
3 = Lightly Agree (Levamente de acuerdo)
4 = Lightly Disagree (Levamente en desacuerdo)
5 = In Disagreement (Bastante en desacuerdo)
6 = Totally Disagree (Completamente en desacuerdo)

1. It is fair to expect a working man to help with household chores.

   Es justo pedirle a un hombre que trabaja que ayude con las tareas de la casa.

11. Women are more indecisive and less stable than men in making their decisions.

    Las mujeres son más indecisas e inestables que los hombres en sus decisiones.

19. Women should invite men on dates.

    Las mujeres deberían invitar a salir a los hombres.

27. Men should have more sexual freedom than women.

    El hombre debe tener más libertad sexual que la mujer.

AVAILABILITY

Information about the availability of the Spanish version should be directed to either of the following sources:

Isabel Pico
University of Puerto Rico
Rio Piedras Campus
Faculty of Social Sciences
Social Science Research Center
Rio Piedras, Puerto Rico 00910

The Commission for the Improvement
of Women's Rights

The scoring key, Guía de Codificación Número 2, Patrones Culturales en el Salon de Clases, Cuarta Parte, is available from the same source.

REFERENCES

The Commission for the Improvement of Women's Rights. Sexism in the classroom: Project for the development of awareness stereotyping modules for elementary school teachers. Final Report to the Women's Educational Equity Act Program. Santurce, Puerto Rico, October 1977.

SEX-ROLE STEREOTYPE QUESTIONNAIRE (SRSQ)

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Inge Broverman
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Worcester, Massachusetts 01613

DATE DEVELOPED

1968, revised 1970 and 1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Sex role perception, self concept

TARGET POPULATION

The instrument is designed for adults of both sexes.

INSTRUMENT FORMAT

The Sex Role Stereotype Questionnaire (SRSQ) is in semantic differential format. The longer version consists of 82 bipolar adjective pairs or short descriptions of behavior traits, and the shorter version consists of 36 items.

ADMINISTRATION

Written directions accompany the questionnaire, which is designed for group administration. The approximate completion time varies from 5 minutes for the short version to 15 minutes for the long version. Administration time also varies as a function of the number of objects a subject is asked to evaluate (any adult, adult male, adult female, the subject himself or herself).

Sex Role Perception

SCORING

The instrument is designed to be hand scored. Complete scoring instructions are provided. The high pole of each item is classified as masculine or feminine and also as socially desirable or undesirable.

DESCRIPTION

Development. The items for the original 122-item SRSQ were obtained by asking college undergraduates to list traits which they considered to differentiate men and women. The 82-item scale subsequently developed includes six new items and 76 items from the original scale, on which subject agreement in classification of an item as either masculine or feminine differed significantly from chance at the .02 level of confidence. The 36-item scale consists of a subset of items in the 82-item version. The item selection for the 36-item scale was based on the judgments of a large group of women and men as to which items showed the strongest male-female differentiation.

Reliability. The authors report fairly high internal consistency of the SRSQ based on split-half reliability coefficients ranging from .72 to .89, using a sample of 150 men and women.

Validity. Some evidence of validity can be inferred from responses to the questionnaire that show high consistency across individuals in their perception of men and women (stereotyping) and in their indication of items representing more or less socially desirable behavior.

Norms. Norms on the 82-item scale are available for 1,100 women and 700 men, ages 17-54.

SAMPLE ITEMS

0 10 20 30 40 50 60

1. Not at all agressive — Very aggressive
2. Not at all adventurous — Very adventurous
3. Never conceited about appearance — Very conceited

AVAILABILITY

Copies of the instrument and further information about it may be obtained from the first author, Dr. Paul S. Rosenkrantz.

REFERENCES

Broverman, I. K., Broverman, D. M., Clarkson, F. E., Rosenkrantz, P. S., & Vogel, S.R. Sex-role stereotypes and clinical judgments of mental health. Journal of Consulting and Clinical Psychology, 1970, 34, 1-7.

Clarkson, F. E., Vogel, S. R., Broverman, I. K., Broverman, D. M., & Rosenkrantz, P. S. Family size and sex-role stereotypes. Science, 1970, 167, 390-392.

Rosenkrantz, P. S., Vogel, S. R., Bee, H., Broverman, I. K., & Broverman, D. M. Sex-role stereotyping and self-concepts in college students. Journal of Consulting and Clinical Psychology, 1968, 32, 287-295.

SEX-ROLE SURVEY (SRS)

AUTHOR

A. P. MacDonald, Jr.
Center for the Study of Human Sexuality
1208 Somerset
Austin, Texas 78753

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for use with college students and adults of both sexes.

INSTRUMENT FORMAT

The Sex Role Survey (SRS) consists of 53 items, to be rated from 'agree very much' to 'disagree very much' on a scale of +3 to -3. Respondents circle numbers that match their opinions. The survey includes four subscales: Factor I, Equality in Business and Professions (EQBP); Factor II, Sex-role Appropriate Behavior/Masculinity-Feminity (S-RAB/MF); Factor III, Equality in Social and Domestic Work (S-DWK); and Factor IV, Power in the Home (POWHO).

Sex Role Perception

ADMINISTRATION

The SRS is designed primarily for group administration. Directions are printed on the form. Approximate administration time is 15 minutes.

SCORING

The SRS is designed to be hand scored. Scoring instructions are available from the Center for the Study of Human Sexuality.

DESCRIPTION

Development. Starting with 169 items (some from Kirkpatrick's [1936] Belief Pattern Scale, others developed by MacDonald), the author tested various forms of the scale. One hundred West Virginia University (WVU) students took a 169-item version of the scale and 133 WVU students took a 140-item version. MacDonald performed factor analysis and item analysis on each set of data, and prepared a 63-item form, which was administered to 639 very diverse subjects (ages 14 to 73). He then factor analyzed responses to the 63-item form (1974). The final form was subsequently developed.

The SRS is designed to determine the extent to which respondents have a positive attitude toward equality between the sexes on the following dimensions: equality in business and the professions, sex-appropriate behavior (masculinity/femininity), social-domestic work, and power in the home.

Reliability. The SRS was given, along with seven other tests, to 193 sociology students at WVU in late 1973. High alpha coefficients are reported for the long form of the survey.

Subscale	Sample	Males	Females
EQBP	.941	.825	.890
S-RAM/MF	.849	.825	.869
S-DWK	.850	.854	.832
POWHO	.855	.879	.807
Total SRS	.962	.961	.944

For the short form, alpha coefficients from a study of 101 college students follow:

EQBP	.602
S-RAB/MF	.834
S-DWK	.700
POWHO	.855
Total SRS	.887

Test-retest reliabilities from a survey of 44 subjects taking the short form are as follows:

EQBP	.663
S-RAB/MF	.885
S-DWK	.798
POWHO	.665
Total SRS	.876

MacDonald (1974) states that the four factors have been stable over various samples taking the long form as well.

Validity. In addition to the SRS, the reliability sample described above (n = 193) took a short personal history form; the Premarital Sexual Permissiveness Scale (PSPS) (Reiss, 1964); an adaptation of the Semantic Differential (Osgood, Suci, & Tannenbaum) used by Pervin and Lilly; Rokeach's 18 Instrumental and 18 Terminal Values; the F Scale (Rokeach, 1960); the Gough-Sanford Rigidity Scale (Rokeach, 1960); and MacDonald's Ambiguity Tolerance Scale. MacDonald (1974) presents correlational analyses between these measures and the SRS and its four factors, which, as a whole, support the relationships he predicted. MacDonald states that the consistent positive associations found, for both sexes, between the SRS and its factors and the Terminal Value equality add to the construct validity of the SRS. In addition, factor analysis lends credence to MacDonald's proposal that support for equality between the sexes is multidimensional.

Additional Information. The following data are also presented: sex differences between SRS means and variances for the four factors for the 53-item short form samples, and the proportion of "no response" answers by the 53-item sample. At the time of this writing, a test manual was being prepared.

SAMPLE ITEMS

+1	I agree a little	-1	I disagree a little
+2	I agree on the whole	-2	I disagree on the whole
+3	I agree very much	-3	I disagree very much

8. The husband should be regarded as the legal representative of the family group in all matters of law.

17. It is foolish to regard scrubbing floors as more proper for women than mowing the lawn.

32. A woman should keep herself an attractive love object and not worry about her rights.

43. Men are naturally more capable than women in financial matters.

51. The ideal marriage is one in which the husband and wife share equally in housework and outside work.

AVAILABILITY

The instrument is copyrighted and may be purchased from:

The Publications Office
Center for the Study of Human Sexuality
1208 Somerset
Austin, Texas 78753

The author requests those who use the SRS send him their research results, or at least the means and standard deviations.

REFERENCES

Kirkpatrick, C. The construction of a belief pattern scale for measuring attitudes toward feminism. Journal of Social Psychology, 1936, 7, 421-437.

MacDonald, A. P., Jr. Identification and measurement of multidimensional attitudes toward equality between the sexes. Journal of Homosexuality, 1974, 1, 165-182.

SEX-ROLE TRADITIONALISM SCALE

AUTHOR

Rhonda Ann Cooperstein
SRI International
333 Ravenswood Avenue
Menlo Park, California 94025

DATE DEVELOPED

1978

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The scale is intended for use with post-secondary students of both sexes.

Sex Role Perception

INSTRUMENT FORMAT

The instrument is a summated rating scale in Likert format. The scale consists of 46 statements on the roles and abilities of men and women.

ADMINISTRATION

The scale is designed for group administration. Directions are printed on the instrument, which requires approximately 15 minutes for completion.

SCORING

The scale is designed for hand scoring. To control for response bias, for half the items agreement reflects "traditionalism", and for the other half agreement indicates "modernity." An individual's score is computed by averaging the scores on the 46 items, a high numerical score indicating traditionalism. Scoring procedures are described in the author's doctoral dissertation cited in the references.

DESCRIPTION

Development. The author developed the scale in order to select subjects for a study of the effects of modern or traditional beliefs on mixed-sex group interaction. The scale was constructed using items generated by the author as well as items from the following scales: Women's Liberation Scale (WLS) by C. Goldberg; Sex-Role Traditionalism Scale, by A. Peplau; a scale measuring approval or disapproval of traditional sex-role standards by L. J. Ellis and P. M. Bentler; and the Attitudes Toward Women Scale, by J. T. Spence and R. Helmreich. This scale has been administered to several hundred undergraduate students. Mean scores for men and for women subjects are available from the author.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

1. If both husband and wife work full time, her career should be just as important as his in determining where the family lives.

5. Big corporations are run equally well by men or women.

12. The Miss America pageant is degrading to the image of the modern women.

16. In raising a daughter, it is important for a mother to prepare her to be a wife.

29. It is reasonable that the wife should have major responsibility for care of the children.

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Cooperstein, R. A. Mixed-sex group interaction: The effects of sex-role traditionalism and ability expectations. Unpublished doctoral dissertation, Stanford University, 1978.

SEX STEREOTYPE MEASURE I and II (SSM)

AUTHORS

John E. Williams
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Wake Forest University
Winston-Salem, North Carolina 27109

DATE DEVELOPED

1975, 1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

Both forms of the Sex Stereotype Measure are designed for use with kindergarten and early elementary school children of both sexes. The Sex Stereotype Measure II has been translated into French, German, Dutch, Norwegian, Spanish, and Japanese and is currently being translated into Hebrew and Chinese.

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INSTRUMENT FORMAT

Both forms of the Sex Stereotype Measure (SSM I and II) use short stories and male and female line drawings or silhouettes as stimulus materials. The SSM I contains 24 stories and accompanying line drawings of males and females. The SSM II contains 32 pictures and 32 associated stories, of which 16 represent masculine traits and 16 represent feminine traits. Each picture shows a male and a female silhouette matched as closely as possible on nonsex variables such as age, facial expression, body position. The right-left position of the male and female pictures is alternated in ABBA order to avoid response sets.

The SSM II is an improved and more comprehensive form and is in wider use than the SSM I.

ADMINISTRATION

The instrument is designed for individual administration. Each story is read aloud by the examiner to the child. The child responds by indicating whether the story describes a male or a female. The sex of the examiner may affect the expression of sex stereotypes by subjects. It is considered advisable to use female examiners with half the children and male examiners with the other half. Instructions for administration are provided in the Manual of Directions. Administration time is approximately 45 minutes. For older elementary children (11 years and older) a paper-and-pencil version is available that may be administered to small groups of students by a pair of examiners.

SCORING

Scoring procedures for obtaining an overall score, a male stereotype score, and a female stereotype score are provided. A high score indicates consistent stereotype responses.

DESCRIPTION

Development. The Sex Stereotype Measure I was developed to assess children's knowledge of adult-defined, conventional, sex-trait stereotypes. The development of the SSM I began with the empirical definition of male and female stereotypes. This procedure involved the administration of the Adjective Check List (Gough & Heilbrun, 1965) to 50 male and 50 female college students with instructions to indicate which of 300 adjectives were most often associated with men and with women. An adjective was included as part of one of the stereotypes if there was agreement by at least 75% of the male subjects and 75% of the female subjects that the adjective was descriptive of a particular sex. In order to translate the adult derived stereotypes into a vocabulary and a format appropriate to the test taking skills of young children, a panel of four judges, including two psychologists and two undergraduate psychology majors, wrote twenty-four simple stories, twelve stories describing behavior associated with 25 of the adult male stereotype adjectives and twelve stories describing behavior associated with 24 of the adult female stereotype adjectives. A picture of two adults, a male and a female, was paired with each of the stories. The final step in the development of the SSM I was empirical determination of whether the panel had been successful in its effort to compose children's stories reflecting male and female stereotype traits. A group of 62 male and 62 female college students served as judges by determining for each story whether it described the typical male or the typical female. Responses of the judges were taken to indicate that the children's stories conformed to the adult sex stereotypes.

The SSM II, a revision of the SSM I, includes eight additional stories and associated pictures. In addition, due to the finding that certain items were influenced by nonsex-characteristics of the pictures, the figure drawings were replaced with silhouettes with sex indicated by the longer hair and skirt of the female and the trousers of the male. Other picture sets have also been developed for cross-cultural studies, including "nude" silhouettes to be used with children in other countries where dress and hair styles may be different and Afro silhouettes to be used with Afro-American children. A group-administered procedure has also been developed for use with children who possess adequate ability to take paper and pencil tests. Additional variations of procedure are described in the technical report accompanying the instrument.

Validity. Scores on the SSM I obtained by 62 male and 62 female college students serving as judges provide a measure of content validity. Analysis of the data provided by these judges yielded a mean score on the twelve stories describing the male stereotype of 10.83 and a mean score on the twelve stories describing the female stereotype of 10.99 (maximum score = 12) and a total sex stereotype score of 21.83 (total possible score = 24), meaning that the judges almost always agreed with the a priori classification of the stories. Both SSM I and SSM II have also been used in experimental studies in which they discriminated significantly between groups, providing evidence of predictive validity.

Results of studies using the SSM II show consistent findings regarding similarities in children's knowledge of sex stereotypes in three countries, the United States, England, and Ireland. In all countries there was a definite progression in sex stereotype learning from age five to age eight. There was also evidence of a general sex difference, with young boys showing a greater awareness of the male than the female stereotype, while the young girls appeared to have nearly equal knowledge of both (Best, et al., 1977).

Norms. The instrument has been standardized on a sample of 196 children in kindergarten, third grade and sixth grade. The distribution of scores according to the SSM II scoring categories for the three age groups is reported in the accompanying Manual of Directions.

Sex Role Perception

SAMPLE ITEMS

Examiner shows the subject a picture of a man and a woman and says:

> "One of these people is a bully. They are always pushing people around and getting into fights. Which person gets into fights?"
>
> "One of these people is emotional. They cry when something good happens as well as when everything goes wrong. Which is the emotional person?"

AVAILABILITY

A packet containing the SSM II and procedures for administration, scoring, and interpretation is available for purchase. Related materials including an annotated bibliography and technical report are also available. Requests for these materials should be sent to:

Sex Stereotype Research Project
Department of Psychology
Box 778, Wake Forest University
Winston-Salem, North Carolina 27109

REFERENCES

Best, D. L., Williams, J. E., Cloud, J. M., Davis, S. W., Robertson, L. S., Edwards, J. R., Giles, H., & Fowles, J. Development of sex-trait stereotypes among young children in the United States, England, and Ireland. Child Development, 1977, 48, 1375-1384.

Williams, J. E., & Bennett, S. M. The definition of sex stereotypes via the Adjective Checklist. Sex Roles, 1975, 1, 327-337.

Williams, J. E., Bennett, S. M., & Best, D. L. Awareness and expression of sex stereotypes in young children. Developmental Psychology. 1975, 11(5) 635-642.

Williams, J. E., & Best, D. L. Sex stereotypes and trait favorability in the Adjective Checklist. Educational and Psychological Measurement, 1977, 37, 101-110.

Williams, J. E., Giles, H., Edwards, J. R., Best, D. L., & Daws, J. T. Sex-trait stereotypes in England, Ireland, and the United States. British Journal of Social and Clinical Psychology, in press.

TRADITIONAL SEX-DETERMINED ROLE STANDARDS ITEMS

AUTHORS

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Peter M. Bentler
Department of Psychology
University of California at Los Angeles
Los Angeles, California 90024

DATE DEVELOPED

1973

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument was designed for use with college students of both sexes.

INSTRUMENT FORMAT

The instrument consists of 38 pairs of statements in forced choice format, each expressing either a traditional or a non-traditional sex-determined role standard.

ADMINISTRATION

The items are group administered. Approximate administration time is 10 minutes. The subject selects one statement from each pair with which he or she agrees. Administration directions are not included with the instrument in its currently available format.

SCORING

The items are hand scored and a scoring key is provided. The individual score is the number of items the subject endorses in the keyed direction, that is the number representing opposition to traditional sex-determined role standards.

DESCRIPTION

Development. The instrument was developed as part of a study of the relationship between sex stereotypes, personality and traditional sex role standards. Most of the items were written on an intuitive basis to address sex role standards in domestic, social, sexual, legal, educational and economic areas. A few items were adapted from a scale developed by Kirkpatrick (1967). Each item is constructed so that a response indicates either approval of traditional sex role standards or espousal of egalitarian standards.

The original instrument, containing 71 items, was administered to 152 college students including equal numbers of males and females. Ten items were eliminated on the basis of extreme endorsement frequencies. The remaining items were subjected to a factor analysis and two factors were extracted. Since the factors did not clearly differentiate in content, the best items of each were selected to form one sex role standards factor. In its final version, the instrument consists of 38 items reflecting the one factor.

Reliability. Alpha coefficients are reported for females (.91), males (.88) as well as for all subjects (.90) and indicate high internal consistency.

Validity. Some evidence of the instrument's validity may be inferred from its successful use in a study of traditional sex determined role standards and sex stereotyping, illustrating its capacity to discriminate between groups in the expected direction. For females, opposition to traditional sex role standards was related to perceived similarity of males and females, to perceived similarity of self to males and to intelligence. For both sexes, disapproval of traditional sex determined role standards was related to liberalism, extralegality, and nonreligiousness.

SAMPLE ITEMS

3. A. In an emergency, women and children should be evacuated first.
   B. Children should be first; men and women should follow.

13. A. I approve of a woman providing the financial support for the family, while the husband does the household tasks.
    B. The husband should provide the money; the wife should do the housework.

21. A. As long as there is a draft, both men and women should be included in it.
    B. Women should not be expected to serve in the military.

AVAILABILITY

The items may be obtained from the second author, Dr. Peter Bentler, at duplicating cost plus postage.

REFERENCES

Ellis, L. J., & Bentler, P. M. Traditional sex-determined role standards and sex-stereotypes. Journal of Personality and Social Psychology, 1973, 25(1), 28-34.

TREDYFFRIN/EASTTOWN SEX FAIRNESS SURVEY

AUTHORS

Mark W. Blair
Joan L. Buttram
John F. Strandmark
Research for Better Schools, Inc.
444 North Third Street
Philadelphia, Pennsylvania 19123

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude survey

MEASUREMENT VARIABLES

Sex role perception, sex fairness

TARGET POPULATION

The instrument is designed to be used with students, teachers, and administrators at the secondary school level.

INSTRUMENT FORMAT

The instrument consists of 84 items in Likert format. The items survey the attitudes and opinions of students toward the roles females and males can assume in home, education, employment, and general social settings.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 30 minutes for completion. Responses are recorded on a separate answer sheet. Directions accompany the instrument.

SCORING

The answer sheet accompanying the instrument may be machine or hand scored. Scoring instructions and a scoring key are available.

DESCRIPTION

Development. The initial pool of items consisted of 286 Likert-type statements assessing the attributes and behavior of women and men in educational, employment, home or familial, and general social context settings. These items were administered to 180 male and female subjects representing several professional groups and high school students. The data contributed by these subjects were used in a principal components factor analysis of the 250 items with the highest item to total score correlations. Two correlated factors, labeled Attributes and Behavior, were extracted. Items were selected for inclusion in the final survey in such a way that each of the principal factors is equally represented with a comparable number of male and female items arranged to address three areas of measurement: (1) assigning traits to groups; (2) roles to groups; and (3) making judgments of individuals based on knowledge of group membership.

The instrument was subsequently administered to more than 1,000 respondents representing users, potential users, and representative members of the professional staffs of 30 Pennsylvania school districts, along with an attitude scale in semantic differential format in order to provide an independent measure of attitudes towards women and men. The T/E Sex Fairness Survey was returned by 69.1 percent and the semantic differential by 57.6 percent. Data from both the initial and subsequent administrations provide some evidence of internal reliability and concurrent construct validity.

Reliability. In the two administrations of the instrument, internal reliability was estimated by calculating Spearman-Brown split-half reliability coefficients for the two factors, female and male items, female and male items within each factor and the total instrument. Reliability coefficients ranged from .76 to .95 in the first administration and from .81 to .94 in the second administration. These coefficients indicate that the instrument is internally consistent.

Validity. Evidence of the concurrent construct validity of the T/E Sex Fairness Survey was obtained by calculating the correlations between the trait-to-group, role-to-group and judgment-of-individuals-based-on-group membership subscales. In the two administrations of the scale, intercorrelations of the subscales and of the subscales with total scale score exceeded .80 and were considered evidence of the concurrent construct validity of the instrument. However, scores on the T/E Sex Fairness Survey were not correlated with attitudes toward males and females as measured by the semantic differential technique.

SAMPLE ITEMS

1 = Strongly disagree
2 = Disgree
3 = Not Sure
4 = Agree
5 = Strongly agree

10. Dr. and Mrs. Brady have two preschool children. Mrs. B. would like to start working. Her husband, a physician, is strongly against it. He thinks it would be best for the children if she remains at home until they enter school.

15. The talk about women being an oppressed group in American society is ridiculous.

20. It is appropriate for male students to take courses teaching basic homemaking skills.

25. Girls should have the opportunity to develop competence with tools and machinery.

AVAILABILITY

The instrument is copyrighted and may be purchased from Research for Better Schools, Inc.

REFERENCES

Blair. M. W., Buttram, J. L., & Strandmark, J. F. Development of the Tredyffrin/Easttown Sex Fairness Survey. Paper presented at the annual meeting of the American Educational Research Association, Ontario, March 1978.

UNTYING THE KNOT OF SEXISM - SELF EVALUATION FORM

AUTHOR

Women's Center of Stockton
and Stockton Unified School District
701 N. Madison Street
Stockton, California 95202

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for use with male and female teachers at preschool through secondary levels.

INSTRUMENT FORMAT

This is a 31-item instrument with items appearing in varied formats. Items 1 through 4, in Likert format, ask the respondent to rate the perceived importance of a series of traits for an adult male and for an adult female. Items 5 through 9, concerned with sex-appropriate occupations and lifestyles, and items 10 through 28, concerned with sex roles in the home, all appear in multiple choice format. The final three multiple choice items tap the respondent's general view of equal opportunities for men and women.

ADMINISTRATION

The instrument is designed for group administration and requires approximately 15 minutes for completion. Complete directions for administration are included with the instrument.

SCORING

The instrument is designed to provide guidelines for discussions in teacher training sessions. It is not scored. The directions for administration suggest specific discussion questions to be used following completion of the instrument.

DESCRIPTION

The instrument is included in the booklet Untying the Knot of Sexism, a manual developed for inservice training of teachers. The Self Evaluation Form was adapted from "Masculinity: What Does It Mean to be a Man?", a questionnaire developed by Carol Tavris and David Pope (Psychology Today, March, 1976). Adaptations were designed to make the instrument applicable to a wider variety of lifestyles and individuals.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

5. Which of the following occupations, if held by a man, would make you doubt his masculinity? (Check as many as you wish, or none.)

    a. typist
    b. nurse
    c. prostitute
    d. model
    e. nursery school teacher
    f. go-go dancer
    g. hairdresser
    h. dress designer
    i. house-husband
    j. interior decorator
    k. living on welfare
    l. dropping out of society

11. How do you feel about working full time while raising children?
    a. strongly approve and would make the necessary personal adjustments
    b. approve, but would make no personal adjustments
    c. tend to disapprove
    d. strongly disapprove
    e. forbid it

AVAILABILITY

The instrument is part of the training booklet cited in the references. A copy of the training booklet may be obtained from:

Beverly Ford
Stockton Unified School District
Teacher Corps/New Careers Office
701 N. Madison Street
Stockton, California 95202

REFERENCES

Women's Center of Stockton and Stockton Unified School District. Untying the knot of sexism. Stockton, California: Author, 1977.

WELLESLEY ROLE ORIENTATION SCALE (WROS)

AUTHOR

Thelma G. Alper
51 Harvard Avenue
Brookline, Massachusetts 03246

DATE DEVELOPED

Revised 1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

Sex Role Perception

TARGET POPULATION

The instrument is designed for use with college women.

INSTRUMENT FORMAT

The Wellesley Role Orientation Scale (WROS) is a 24-item Likert-type scale. Individuals respond to statements on a 6-point scale ranging from 'strongly agree' to 'strongly disagree' (from +3 to -3). There are seven items for each of three subscales (feminine traits, feminine role activities, and male-oriented careers), and three unscored filler items. In the revised WROS, the 24 items are imbedded in the 38-item Traditional Family Ideology Scale (TFI) developed by Levinson and Huffman (1955).

ADMINISTRATION

The WROS is a self-administering scale, which may be given to groups or individuals. Thus far, it has been used exclusively with groups for research purposes. Imbedded in the TFI, the WROS takes about 20-30 minutes to complete.

SCORING

The WROS is hand-scored, but could be adapted for machine scoring. A scoring key is available from the author.

DESCRIPTION

Development. The WROS grew out of research in the area of achievement motivation and the relative dearth of information about the achievement, motivation, and role orientation of women. A set of hypotheses was based on the main assumption that traditionally role-oriented women are less likely to be achievement-oriented than women whose role orientation is nontraditional.

In developing the WROS, the author asked psychology students to submit a number of sex role relevant statements. Analysis of the statements obtained yielded the three role preference categories described earlier. Final selection of items and filler items was determined by the use of two successive Q sorts done by the same students. These items were then pilot-tested with groups of undergraduates, and a 24-item scale emerged. The initial study using the WROS involved 35 Wellesley undergraduates (20 first-year and 15 third-year students). Successive studies have been done since 1964. The WROS was revised in 1974.

Reliability. Split-half reliability coefficients were .58 for the initial study and .60 ($p < .01$) for the replication study.

The test-retest reliability coefficient was .70 ($p < .01$) for a group of 25 upperclassmen, retested after one semester.

Validity. WROS respondents also completed a brief questionnaire indicating what they expected to be doing one year to ten years after graduation, and what they would like to be doing. To validate the WROS, more low scoring subjects (nontraditionalists) should be planning on a career. In fact, the expectation data for a year after graduation support this hypothesis as do the preference data. No differences appear in the data for the years after graduation, supporting other data indicating that middle-class female samples want to marry eventually regardless of role orientation.

Repeated efforts to correlate the WROS with two apparently similar measures--the Fe subscale of the CPI (Gough, 1957) and the Crowne-Marlow Social Desirability Scale (1964)--have failed to yield significant relationships. On the other hand, correlations with the TFI have been consistently positive and highly significant. Significant correlations in the expected negative direction between the WROS and Rosenkrantz's sex-stereotype measure (1968) have been obtained with one sample of lower-middle-class junior college women.

SAMPLE ITEMS

+1 = slightly agree
+2 = moderately agree
+3 = strongly agree

-1 = slightly disagree
-2 = moderately disagree
-3 = strongly disagree

8. I think that college girls, in general, tend to be impolite.

16. I object to jobs where I have to wear uniforms which make me appear less feminine.

31. Women have just as much right as men to sow wild oats.

41. A marriage should not be made unless the couple plans to have children.

53. Even today, women live under unfair restrictions that ought to be done away with.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage. Permission to reproduce the scale is required by the author.

REFERENCES

Alper, T. G. Achievement motivation in college women--A now-you-see-it-now-you-don't phenomenon. American Psychologist, 1974, 29, 194-203.

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Alper, T. G., & Mark, E. Sex differences in affiliation motivation. Women's Psychology Quarterly, in press.

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THE "WHO SHOULD" TEST

AUTHOR

Project Equality
Highline School District No. 401
Box 66100
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DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

Elementary school boys and girls in grades K through 6.

INSTRUMENT FORMAT

There are two forms of this instrument, one for grades K-2 and the other for grades 3-6. Both are in multiple choice format. The K-2 form consists of 26 items (including two sample items) to be read aloud to the subjects. The children respond to each question by marking on their answer sheets a picture of a boy, a girl, or a boy and girl standing together. The grade 3-6 form consists of four parts and a total of 41 questions, also to be read aloud by the test administrator. The subjects respond by circling Man, Woman, or Both, on an answer sheet.

ADMINISTRATION

The instrument is designed to be administered orally to a group. Approximate time for completing the test is 10 minutes. Instructions for administration are included with the instrument.

SCORING

The test is designed to be hand scored. One point is scored for every 'both male and female' answer. Maximum score for the primary level form is 24 points and for the intermediate level form, 41 points.

DESCRIPTION

Development. The "Who Should" Test was adapted for Project Equality from work originally done by Lynn Iglitzin of the University of Washington. The instrument was used as a pre/post test to evaluate the success of a project designed to reduce sex role stereotyping at the elementary school level through implementation of materials which provided students with nontraditional sex role models.

Reliability. Test-retest reliability correlations are .62 for the primary form (n=20) and .88 for the intermediate form (n=22) over a two-week period. The internal consistency of the instrument was measured by computing biserial correlations between each item and the total test score. For the primary form, the coefficients averaged .52, and for the intermediate form, the average coefficient was .59. Minor modifications of the instrument were made on the basis of these data.

Validity. The content of the instrument was validated by a panel of experts in the area of sex role stereotyping. In addition, the instrument successfully reflected the impact of the training program by discriminating between experimental and control groups in the predicted direction. More exactly, experimental groups increased their perception of sex-stereotyped occupations as appropriate for both sexes while control groups did not.

SAMPLE ITEMS

(grades K-2)

6. At home, who should wash dishes? Man Woman Both

20. Who should be a race car driver? Man Woman Both

(grades 3-6)

4. Who should be a carpenter? Man Woman Both

25. At school, who should be a class secretary? Boy Girl Both

AVAILABILITY

The instrument is available from Project Equality at duplicating cost, handling fee and postage. Project Equality would like copies of studies using the instrument.

WOMEN'S LIBERATION SCALE (WLS)

AUTHOR

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Indianapolis, Indiana 46205

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Sex role perception

TARGET POPULATION

The instrument is designed for use with adults of both sexes.

INSTRUMENT FORMAT

The instrument consists of 14 items to be rated on a 4-point Likert-type scale from 'strongly disagree' to 'strongly agree'. To control for response set, 'strongly agree' appears first for half of the items and 'strongly disagree' appears first for the other half.

ADMINISTRATION

Either individual or group administration is possible. Approximate administration time is five minutes. Directions are included in the journal document (Goldberg, 1976) cited in the references.

SCORING

Scoring directions are provided. The instrument may be hand scored by summing the responses to each item. The score for each item ranges from one to four, with total scores ranging from 14 to 56. A high score indicates a favorable attitude toward the women's movement.

DESCRIPTION

Development. The author administered the Women's Liberation Scale (WLS) to 102 male and 102 female introductory psychology students at Indiana-Purdue University at Indianapolis in 1974. In a pilot study (Goldberg, 1975) he also tested some female members of the National Organization of Women (NOW).

This scale measures attitudes toward positions advocated by groups in the women's liberation movement. The author states that subjects who obtain a low score on this scale are more likely to endorse sex role stereotyping than those who obtain a high score.

Reliability. Split-half reliability coefficients of .65 for males and .75 for females are reported.

Validity. Validity is based on the assumption that females have a more favorable attitude toward the women's movement than do males. Results of the Indiana-Purdue University study show females scoring higher than males on the WLS (female mean 41.08, male mean 37.52; $F = 22.31$, $p < .0001$). Results from the pilot study, noted above, show the higher scores of women who belong to NOW compared with women in a control group.

Goldberg (1975) administered the WLS, a conformity measure, and a short form of Gough's Masculinity-Femininity scale to the 204 pilot test subjects. He found that subjects who obtained low scores on the WLS tend to conform more than those with high scores. Low scorers are more likely to endorse stereotypes of sex-related abilities.

Additional Information. Mean scores for the three groups in the pilot study were as follows: Males = 37.94, females = 40.94, and females in NOW = 51.10, with a control group of females having a mean of 41.25.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Disagree
4 = Strongly disagree

1. In general, the activities of Women's Liberation groups will have a very good influence in our society.

5. All occupations should be equally accessible to men and women.

10. Only the woman has the right to decide whether or not she should have an abortion.

14. Women can obtain sexual satisfaction with other women as well as with men.

AVAILABILITY

The scale may be reproduced from Journal Supplement Abstract Service (JSAS) Manuscript No. 1187 which may be ordered from:

Journal Supplement Abstract Service
American Psychological Association
1200 - 17th Street, N.W.
Washington, D.C. 20036

Potential users should contact the author for permission to use the scale.

REFERENCES

Goldberg, C. Conformity to majority type as a function of task and acceptance of sex related stereotypes. Journal of Psychology, 1975, 89, 25-37.

Goldberg, C. Women's liberation scale (WLS): A measure of attitude toward position advocated by women's groups. JSAS Catalog of Selected Documents in Psychology, 1976, (Ms. No. 1187)

WOMEN'S STUDIES PROGRAM ATTITUDE QUESTIONNAIRE

AUTHOR

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DATE DEVELOPED

1972-73

INSTRUMENT TYPE

Projective measure and attitude scale

MEASUREMENT VARIABLES

Sex role perception (family role, career/life aspirations, knowledge about sexism, self-image, and general sex role perception)

TARGET POPULATION

The questionnaire was designed for use with intermediate school students (grades 4 to 6) of both sexes.

INSTRUMENT FORMAT

The questionnaire has three parts. Part I asks two open-ended questions requiring short essay responses. Part II uses a projective story-telling technique, requiring the subject to provide an ending to a short story. A different story is presented for boys and for girls.

Part III consists of five attitude scales, four of which are semantic differential scales where the subject marks one of a pair of adjectives to describe himself or herself, 'how I want to be', a male, and a female. The last scale is a 42-item multiple choice task where the subject responds as to who should do certain jobs--males, females, or both.

ADMINISTRATION

The instrument is designed for group administration. Estimated administration time is 45 minutes to one hour. Directions for administering the instrument and a statement of the intended purpose of each of its sections are provided in a separate teacher information sheet.

SCORING

The instrument is not designed to be scored. Each section, however, is designed to yield information on aspirations, motivation, or self-image of boys and girls.

DESCRIPTION

The Questionnaire was designed as a pre/post evaluation measure for an experimental instructional program conducted by the Berkeley Unified School District Women's Studies Program for intermediate school students. The items were developed by a systematic process and were based on the author's classroom experience. In its final form the instrument consists of three parts. Part I was devised to provide information on sex difference in children's thoughts about their future. Part II, based on the projective story-telling technique developed by Matina Horner, is designed to determine if the motive to avoid success is apparent in fourth and fifth grade girls. Part III assesses student attitudes toward themselves and other members of the same sex and toward male and female roles in general.

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

(Part I)

2. Imagine you are grown up. Describe how you would spend a typical day in your life.

Sex Role Perception

(Part III)

Mark an X in one of the 5 spaces by each pair of adjectives to describe "I am."

11. Strong _____ _____ _____ _____ _____ Weak

22. Friendly _____ _____ _____ _____ _____ Unfriendly

AVAILABILITY

The instrument is available from the Berkeley Unified School District Women's Studies Program at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Shanks, P. F. Sex role stereotyping among intermediate school children: A report on the Women's Studies Experimental Program of Instruction, 1972-1973. Berkeley Unified School District, September 1973.

Shanks, P. F. Sex role stereotyping among grade school children: Report #2 on experimental instruction in the Berkeley Unified School District Women's Studies Program, 1973-1974. Berkeley Unified School District, June 1974.

Other Instruments

CAREER DEVELOPMENT INVENTORY (CDI) FORM I, FORM III

AUTHORS

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DATE DEVELOPED

1972 and 1976

INSTRUMENT TYPE

Attitude scale and information test

MEASUREMENT VARIABLE

Vocational maturity

TARGET POPULATION

The Career Development Inventory (CDI), Forms I and III, are intended for junior and senior high school students. Other versions of the instrument are applicable to college students and adults.

INSTRUMENT FORMAT

The high school version of the CDI, Form I, consists of 91 items in multiple choice format, and Form III of 191 items. The CDI Adult Form is described in the Career Awareness, Choice, Motivation and Interest section of this book.

ADMINISTRATION

The instrument is designed for group administration. Form I requires approximately 20-25 minutes. A *Preliminary Manual for Research and Field Trial* gives complete directions for instrument administration. Form III requires 80 minutes. A Technical Report provides directions.

SCORING

Directions for hand and machine scoring Form I are provided in the Preliminary Manual (CDI-I) or Technical Report (CDI-III). Form I of the instrument yields scores on three scales, two of them attitudinal (A. Planning Orientation, and B. Resources for Exploration) and one cognitive (C. Information and Decision-Making). Form III yields scores for six scales, two attitudinal (I. Planfulness, and II. Resources for Exploration) and four cognitive (III. Career Decision-Making, IV. Career Development Information, V. World of Work Information, and VI. Knowledge of Preferred Occupational Groups). A total score is also obtained. Scale A is scored by summing the values of each response. The Scale B score requires the multiplication of each response by the proper weight. The scale C score is determined by counting the number of "correct" responses.

Similar methods are used with Form III.

DESCRIPTION

Development. The Career Development Inventory (CDI), Form I, is derived from an earlier instrument called the Career Questionnaire, which was comprised of 13 a priori scales measuring different aspects of vocational maturity identified in earlier research. Factor analysis of the Career Questionnaire led to the reorganization of eight of the original thirteen scales into the three present scales of the CDI. The total Career Development Scale is an arbitrary combination of the three scales, justified by their intercorrelations (ranging from .22 to .56 in two separate samples of 200 tenth-grade students) and by the approximately equal numbers of items in each scale. Two of the scales (factors), described as Planning Orientation and Resources for Exploration, are attitudinal, and the third, Information and Decision-Making, assesses cognitive information. In both final forms, the CDI yields subscale scores and a total score. The subscale scores of individual students can be compared with each other in order to examine relative strengths and weaknesses within students or they can be contrasted with the scores of other students to see how students compare with others of their own sex and grade.

Form III, using more items, yields six internally consistent and moderately independent scales (highest grade 9 intercorrelation, .74, highest grade 11, .72, median at grade 11, .35). Here, too, there are two similar factors.

Reliability. Test-retest reliability for Form I, based on administration to 92 male and female tenth-grade students, with intervals ranging from two to four weeks, are reported as .85, .82, and .71 for Scales A, B, C and as .87 for the total score. For Form III, alpha coefficients for 372 high school pupils are .90, .79, .72, .86, .77, and .70.

Validity. Content validity of the CDI, Form I, is based on expert judgment that the items in the instrument assess the attitudes and behaviors indicated by the scale names. Criterion validity has been assessed by correlating scale scores with four concurrent criterion variables: level of father's occupation, a rating of the student's vocational preference level, aptitude measured by the SRA-verbal test and grade point average. The attitude scales (Scales A and B) are uncorrelated with any of the criterion measures. The cognitive information scale (Scale C) correlates positively with verbal aptitude and grade point average. For Form III, the results are similar, except that the attitude scales are somewhat related to school grades and to parental occupational level and intelligence; but in addition, significant increases are reported between ninth and eleventh graders.

Norms. Tables of norms for the CDI, Form I, are provisionally adapted from the validation of an earlier version of the instrument. Raw scores and percentiles for the subscales and the total score are reported for a combined group of 400 male and female tenth-grade students as well as separately for 200 males and 200 females. Means and standard deviations are also reported for small samples of eighth and twelfth-grade students. Similar data are available for Form III.

SAMPLE ITEMS

How much thinking and planning have you done in the following areas? What kinds of plans do you have? For each question below, choose one of the following answers to show what you have done.

1) I have not given any thought to this.

2) I have given some thought to this but haven't made any plans yet.

3) I have some plans, but am still not sure of them.

4) I have made definite plans, but don't know how to carry them out.

5) I have made definite plans, and know what to do to carry them out.

1. Finding out about educational and occupational possibilities by going to the library, sending away for information, or talking to somebody who knows about the possibilities.

5. Taking part in school or out of school activities which will help me in college, in training, or on the job.

10. Dealing with things which might make it hard for me to get the kind of training or the kind of work I would like.

AVAILABILITY

Until the relationships of the CDI to a variety of appropriate criteria, and particularly its predictive validity, are more fully understood, the instrument is available from the authors to qualified individuals for research purposes only. The authors would like copies of studies using the instrument.

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REFERENCES

Super, D. E. The Career Development Inventory. British Journal of Guidance and Counseling, 1973, 1, 37-50.

Super, D. E., & Thompson, A. S. A six-scale, two-factor measure of adolescent career or vocational maturity. Paper presented at the International Congress of Applied Psychology, Munich, August 1978.

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Hamdani, A. J. Exploratory behavior and vocational development among disadvantaged inner-city adolescents. Unpublished doctoral dissertation, Teachers College, Columbia University, 1974.

Harris, J. A. Analysis of the effects of a computer-based vocational information system on selected aspects of vocational planning. Unpublished doctoral dissertation, Northern Illinois State University, 1972.

Forrest, D. J. The construction and validation of an objective measure of vocational maturity for adolescents. Unpublished doctoral dissertation, Teachers College, Columbia University, 1971.

CLASSROOM ENVIRONMENT SCALE (CES) (FORM R)

AUTHORS

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Opinion inventory

MEASUREMENT VARIABLES

Classroom environment as perceived by students, teachers, and administrators

TARGET POPULATIONS

The instrument is designed for junior and senior high school students, their teachers and school administrators.

INSTRUMENT FORMAT

The Classroom Environment Scale (CES) consists of true/false items which measure the following dimensions: Relationship Dimensions (Involvement, Affiliation, Teacher Support); Personal Development Dimensions (Task Orientation, Competition); System Maintenance and System Change Dimensions (Order and Organization, Rule Clarity, Teacher Control, Innovation). Forms R, I, and E each contain 90 items. Form S contains 36 items. Test items are printed in a booklet and are accompanied by a separate answer sheet.

ADMINISTRATION

The CES is designed for group administration. Directions are printed on the form, and details on test administration are provided in the accompanying manual. Approximate administration time is 15 to 20 minutes.

SCORING

The instrument is designed to be hand scored, yielding scores on the 9 subscales. Answer sheets and scoring stencils are provided, and scoring directions are given in the manual.

DESCRIPTION

Development. The CES is one of nine Social Climate Scales developed in the Social Ecology Laboratory at Stanford University.[1]

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[1] The other scales are: Ward Atmosphere Scale, Community-Oriented Programs Environment Scale, Correctional Institutions Environment Scale, Military Company Environment Inventory, University Residence Environment Scale, Work Environment Scale, Group Environment Scale, and Family Environment Scale.

Other Instruments

The CES focuses on the measurement and description of teacher-student and student-student relationships and on the organizational structure in the classroom. The rationale for the instrument is based on the assumption that environmental climate can be measured through determining the consensus of individual characterizations of the environment, and that environmental climate directly influences behavior. The choice and wording of items was based on a general formulation of environment press (H. Murray, 1938). Each item on the CES was written to identify characteristics of an environment which could exert a press toward one of the scale dimensions, e.g. toward Involvement or toward Competition.

The initial form (Form A) of the CES with 242 items covering 13 dimensions was administered in 26 high school classrooms. Analysis of the data from this sample led to the derivation of Forms B and C, the latter consisting of 208 items. Items were dropped from Form A which were not highly correlated with their subscales or which correlated too highly with other subscales and which did not differentiate significantly between classrooms. Highly correlated subscales were combined. Form C was administered to 45 high school classrooms, and the results of this test were used to develop the final form (R).

An analysis of variance of CES subscales among classrooms showed that all nine subscales significantly differentiated among the initial sample of 22 classrooms.

A short form (Form S) of the CES with four items for each of the nine subscales was subsequently developed. Using a sample of 38 high school classrooms, intraclass profile correlations were calculated between the Form R and Form S subscale standard scores. These correlations were above .80 for 34 of the 38 classrooms. (The first 36 items on Form R constitute the Short Form.)

Two additional forms of the CES have also been developed, the Ideal Classroom Form (I) and the Expectations Form (E). Form I was developed to measure goals and value orientations through defining the subject's ideal classroom. It has been used to compare goals of students, teachers, principals, and other groups. Form I may also be used in conjunction with Form R to identify areas in which students and teachers feel changes should occur. Form E was developed to tap student and teacher expectations about a new classroom. Forms I and E have 90 items each and are parallel to Form R. Psychometric data is not yet available for Form E.

Reliability. Test-retest reliabilities on the nine subscales were calculated on 52 students in four classrooms over a six-week interval. The reliabilities range from .72 to .90.

The overall stability of the CES profile was tested by test-retest administrations of the instrument over two-, four-, and six-week intervals in nine different classrooms. Average profile correlations were .94 for the two-week interval, .85 for the four-week interval, and .95 for the six-week interval. The internal consistency measured by item to subscale correlation using the Kuder-Richardson Formula

20 ranged from a high correlation of .86 for Teacher Control to a low of .67 for Competition. The intercorrelations between subscales averaged about .25, indicating that the subscales measure distinct though related aspects of classroom environment (n = 465 students, 22 classrooms).

Validity. A number of studies are in process or have been completed which provide some evidence of the instrument's content, construct, and predictive validity. Several of these studies are summarized in the following paragraphs. These studies and others are described in Moos (1979).

In one study, data have been collected on a sample of over 250 high school classrooms, on the CES, the Kelly Exploration Scale, the Rotter Internal-External Control Scale, and the Bass Orientation Inventory. Basic information about the teacher and the class was also collected, e.g., total years of the teacher's experience, size of class enrollment. Analyses are in progress relating class size to classroom learning environment and student and teacher coping styles (as measured by the Kelly, Rotter and Bass Scales) to differential student satisfaction and mood.

The relationship of the perceived environment of high school classrooms to student satisfactions and moods was assessed in two matched samples of 18 classrooms each drawn from the overall sample of 250 classrooms (Trickett & Moos, 1974). Students expressed greater satisfaction in classrooms characterized by high student involvement, by a personal student-teacher relationship, by innovative teaching methods, and by a clarity of rules around classroom behavior. Classroom social environment was also related to students' moods. Students felt more secure and interested in classrooms which emphasized the Relationship dimensions of Involvement, Affiliation and Teacher Support. Students reported feeling angrier in classrooms which were low in Teacher Support and Order and Organization. Teacher Support emerged as a particularly important dimension in high school classrooms.

In addition to being concerned with a "satisfying" classroom, the study also investigated the typical academic function of learning. The classroom in which students felt that much material was learned was both similar to and different from the "satisfying" classroom. Involvement, Teacher Support, and Rule Clarity were highly emphasized, but this kind of classroom also emphasized Competition and Order and Organization. Thus the picture of the classroom in which students report a great deal of content learning combined an affective concern with students as people (Relationship dimensions) with an emphasis on students working hard for academic rewards (Competition) within a coherent, organized context (Order and Organization and Rule Clarity).

Some additional work has linked classroom climate and student absenteeism in a sample of nineteen high school classrooms. Student absences were divided into those which occurred for medical or for non-medical reasons. Classrooms high in student medical absences were characterized by a lack of emphasis on Relationship dimensions of Involvement and Teacher Support and the System Change dimensions of Innovation. They were also characterized by a high degree of emphasis on the Personal Development dimensions of Task-Orientation and Competition and the System Maintenance dimension of Teacher Control. The findings were basically similar for non-medical absences. Thus, students are more likely to stay away from classes which they perceive to be restrictive and difficult even if they feel that they learn more in these classes. In some additional work, it was found that teachers who establish socially cohesive classrooms (high on Relationship dimensions) actually tend to give higher average grades to students. Teachers in classrooms high on Teacher Control tend to give lower average grades. (See Moos & Moos, 1978; and Moos, 1979).

The extent to which students' personality and socioeconomic characteristics are related to their perceptions of classrooms was also investigated. Correlations were calculated within-classrooms between students' perceptions of the classroom climate (i.e., their CES subscale scores) and their scores on Machiavellianism, self-reported sociometric influence, and sociometric influence as perceived by fellow classmates. The resulting correlations were all extremely low (none of the 72 average correlations were above .20), indicating that students' perceptions of their classroom climates are essentially independent of these personal characteristics. These results are consistent with other findings which indicate that individual personality and background characteristics generally show only very low correlations with perceptions of the social environment (see Moos, 1974a and 1974b, Chapter 3).

Norms. Mean scores, standard deviations, and raw score-to-standard-score conversion tables for Form R are presented in the manual. These are based on a normative sample of students in 382 classrooms and teachers in 295 classrooms, from a wide variety of high schools and junior high schools. Separate norms have been calculated by subject area for certain classes: English and Social Studies, Science, Math, Business and Technical classes.

For Form I, a preliminary normative sample has been obtained on students in 50 high school classrooms and teachers in 42 classrooms (n = 1,013 students), and means and standard deviations for classrooms, individuals, and teachers are presented in the manual. Similar information is presented for Form S.

SAMPLE ITEMS

If you think the statement is true or mostly true of your class, make an X in the box labeled T (true). If you think the statement is false, or mostly false, make an X in the box labeled F (false).

19. Students are often "clock-watching" in this class.

41. A student's grade is lowered if he gets homework in late.

70. In the first few weeks the teacher explained the rules about what students could and could not do in this class.

90. In this class, students are allowed to make up their own projects.

AVAILABILITY

The instrument and accompanying Manual are copyrighted and may be purchased from:

Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California 94306

The authors would like copies of studies using the instrument.

REFERENCES

Moos, R. The Social Climate Scales: An Overview. Palo Alto: Consulting Psychologists Press, 1974. (a)

Moos, R. Evaluating treatment environments: A social ecological approach. New York: Wiley and Sons, 1974. (b)

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Trickett, E. & Moos, R. The social environment of junior high and high school classrooms. Journal of Educational Psychology, 1973, 65, 93-102.

Trickett, E. & Moos, R. Personal correlates of contrasting environments: Student satisfaction in high school classrooms. American Journal of Community Psychology, 1974, 2 1-12.

COHEN'S FEAR OF SUCCESS QUESTIONNAIRE (FOSQ)

AUTHOR

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Port Washington, New York 11050

DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Fear of success

TARGET POPULATION

The Cohen Fear of Success Questionnaire (FOSQ) was designed for use with high school students of both sexes.

INSTRUMENT FORMAT

The FOSQ consists of 64 statements in true/false format. Responses are marked on separate answer sheets.

ADMINISTRATION

The FOSQ is designed for group administration. Directions are printed on the form. Administration time is approximately 15 minutes.

SCORING

The FOSQ does not yield individual scores and is not to be used as a diagnostic instrument. Scores are to be used to identify groups of people as relatively high or relatively low in fear of success. Scoring directions and a scoring key are available from Drs. Canavan-Gumpert, Garner, and Gumpert, Department of Psychology, Boston College, Boston, Massachusetts 02167.

DESCRIPTION

Development. The conceptual framework underlying the development of the Cohen FOSQ is based on the assumption that success anxiety is a general characteristic of certain persons and not restricted to particular spheres of activity. Given this theoretical orientation, the items in the Cohen FOSQ were constructed to reflect success anxiety that is independent of specific achievement contexts. The authors also attempted to avoid questions that involve stereotypic behaviors associated with male and female sex roles. The final questionnaire consists of 64 items in yes/no format measuring nine factors identified through factor analysis: 1) anxiety over the expression of needs and preferences; 2) reluctance to acknowledge personal competence; 3) impaired concentration and distractibility; 4) indecisiveness; 5) fear of loss of control; 6) illegitimacy of self-promotive behavior; 7) anxiety over being the focus of attention; 8) preoccupation with competition and evaluation; and 9) preoccupation with the underplaying of effectiveness. Average intercorrelation of the factors is reported at .42.

Reliability. Internal reliability, based on administration to 230 male and female high school students, is reported at .90 using the KR-20 formula.

Validity. A measure of convergent validity of the Cohen FOSQ is provided by the correlation of .74 with the Pappo FOSQ. The predictive validity of the instrument was tested in an experiment in which high and low scorers on the Cohen FOSQ participated in a "contest" in which all participants (47 male and 43 female high school students) were told that they had succeeded in a qualifying phase and were finalists in a runoff contest. The experiment confirmed the prediction that after a success experience, high scorers on the FOSQ would compare unfavorably with low scores in task performance. It was also hypothesized that postsuccess performance deterioration would be greater for those who competed with a same-sex person than with an opposite-sex person. This prediction was also supported, although the effect was more pronounced with male competitors than female. In other respects, male and female subjects high in fear of success behaved similarly, suggesting no important differences between the sexes in behavior as a function of fear of success.

SAMPLE ITEMS

It makes me feel uneasy to have to ask other people for things.

I'm reluctant to make a large purchase without consulting someone else first.

It's important not to get too excited about things one really desires.

I tend to believe that people who look out for themselves first are selfish.

I hate having a fuss made over me.

When someone I know well succeeds at something, I usually feel that I've lost out in comparison.

In the lower grades in school, if I got a good grade on a work assignment, I often felt that I had fooled the teacher.

AVAILABILITY

The instrument is copyrighted and is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Cohen, N. E. Explorations in the fear of success. (Doctoral dissertation, Columbia University, 1975) Ann Arbor, Michigan: Xerox University Microfilms, 1975. No. 75-18,368.

Canavan-Gumpert, D., Garner, K., & Gumpert, P. The success-fearing personality. Lexington, Massachusetts: Lexington Books, 1977.

COLLEGE STUDENT QUESTIONNAIRES (CSQ)

AUTHOR

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Princeton, New Jersey 08540

DATE DEVELOPED

1965

INSTRUMENT TYPE

Survey questionnaire, cognitive test

MEASUREMENT VARIABLES

Attitude toward college, social attitudes, academic motivation

TARGET POPULATION

The College Student Questionnaires (CSQ) are designed to be used with undergraduate college students of both sexes. Part I is designed to be used specifically with entering students (freshmen and transfers), Part II with enrolled undergraduates.

INSTRUMENT FORMAT

The CSQ consists of two separately administered survey instruments and a cognitive test which may be administered with either form of the survey questionnaire. Both survey instruments contain 200 multiple choice items. Part I, to be administered at the beginning of the academic year, is divided into four sections covering Educational and Vocational Plans, Secondary School Information, Family Background, and Attitudes. Part II may be administered to any enrolled undergraduate during the academic year and is divided into three sections covering Educational and Vocational Plans, College Activities, and Attitudes. A separate cognitive test (Control Test AA) of academic aptitude is available to researchers desiring a statistical control on this variable. The test consists of 18 verbal items and 12 math items, all in multiple choice format.

ADMINISTRATION

The instruments are designed to be administered to groups of at least 100 students at a time. A separate set of instructions for administering the College Student Questionnaires is included in the instrument package. If the control test is to be used, it is to be administered and collected prior to distribution of the CSQ. The CSQ is untimed but requires approximately 60 to 90 minutes for completion. The control test is timed, with 12 minutes allowed for completion.

SCORING

Both forms of the CSQ yield 13 scale scores discussed in detail in the CSQ Technical Manual. The scales may be hand or computer scored as summated rating scales. Directions for scoring, score interpretation, and use are provided in the CSQ Technical Manual. CSQ scores are designed to be used as group rather than individual descriptors. Recommended use of scores is in institutional self-study and planning. ETS no longer provides scoring and reporting services for the CSQ. However, booklets and answer sheets are available for local scoring.

The Control Test is hand scored. The single score that the test yields represents the total number of correct responses.

DESCRIPTION

Development. The general structure of the CSQ was derived from a pool of questionnaire items collected prior to 1961 by sociologist Martin Trow in a survey of a large number of college student research questionnaires. Two 313-item draft questionnaires were developed from this item pool. The items were organized into thirteen scales of fifteen items each on a logical or a priori basis and into additional biographical and attitudinal items. The preliminary experimental CSQ questionnaires were subjected to three administrations to identify content areas and specific items needing revision. The only substantive change resulting from these administrations was the addition of a 10-item Motivation For Grades Scale. In addition, the initial 15-item experimental scales were reduced to 12 items each on the basis of an internal consistency item analysis and then subsequently reduced to 10 items each based on additional internal consistency analyses, the capacity of the items to discriminate between freshmen and seniors, the degree to which items yielded meaningful differences among diverse institutions. In its present form, the CSQ is available in two versions, one for entering undergraduates and the other for advanced undergraduates, and consists of the following 10-item scales: (SF) Satisfaction with Faculty; (SA) Satisfaction with Administration; (SM) Satisfaction with Major; (SS) Satisfaction with Students; (SH) Study Habits; (EI) Extracurricular Involvement; (FI) Family Independence; (PI) Peer Independence; (L) Liberalism; (SC) Social Conscious; (CS) Cultural Sophistication; (MG) Motivation for Grades; (FS) Family Social Status. These 13 scales assess three factors identified through factor analysis: satisfaction or morale (Factor I), socio-cultural awareness (Factor II), independence (Factor III).

Reliability. Three separate sets of internal consistency estimates, using coefficient alpha, are reported for the scales of the CSQ, based on an analysis of a random sample of 500 cases drawn from a pool of more than 6,000 undergraduates completing the CSQ in 1963 (rs range from .64 to .84), on Spearman-Brown corrections of the earlier sample (rs range from .61 to .81) and on an additional sample of 450 respondents administered the CSQ-2 in 1965 (rs range from .57 to .75). All internal reliability estimates are based on the preliminary experimental version of the CSQ-2 (advanced undergraduates). Also reported are scale mean reliability estimates, based on a sample of 700 cases from the same pool of more than 6,000 undergraduates. Standard errors of the mean range from .16 to .22 for individual scales.

Validity. Data bearing upon construct validity of the CSQ are described. The scales of the CSQ correlate with biographical and attitudinal characteristics where a relationship would logically be expected more often than would be predicted by chance, although the correlations tend to be low. The low correlations are attributed in part to the less than perfect reliabilities of individual scales, that is, with reliability of individual scales ranging in the .60s and .70s, the correlations are substantially attenuated. Comparisons of mean scores for selected subgroups of students, such as freshmen and seniors, high achievers and low achievers, men and women students, students majoring in different fields, and selected college populations, also illustrate the capacity of the CSQ to detect meaningfully different response patterns in different groups.

Additional Information. The Control Test for Academic Aptitude (CTAA) consisting of verbal and quantitative sections, has been broadly fashioned after the model of other scholastic aptitude tests. The CTAA yields a total score only, rather than separate V and M scores. An original set of 50 items was assembled and pretested on 460 students at four institutions and a subsample of 380 cases, including equal numbers of males and females, was drawn for inclusion in an item analysis. Items selected for the final CTAA were spread over the range of difficulty and item-total biserial correlations ranged from .16 to .62 with a median r of .43. Split-half reliability for the CTAA is reported at .79, based on the 80 cases not included in the item analysis sample. Since the four institutions for which CTAA data are available differ in manner of recruitment and selection of students, the pattern of mean scores for these four colleges, which differ in the order that would be expected, is taken as evidence of construct validity.

SAMPLE ITEMS

Part I

How much competitiveness for grades do you expect to find among your classmates during your first year at this college?

1. A great deal of competitiveness
2. A fair amount of competitiveness
3. Only a little competitiveness
4. No competitiveness at all

Part II

Speaking generally, how satisfied are you with the willingness of most students on this campus to associate with other students whose racial, ethnic, or social background are different from their own?

1. Very dissatisfied
2. Somewhat dissatisfied
3. Fairly satisfied
4. Very satisfied

AVAILABILITY

All materials in the CSQ package may be ordered from:

Institutional Research Program for Higher Education
ETS College and University Programs
Box 2813
Princeton, New Jersey 08540

The instrument is copyrighted. The author would like copies of studies using the instrument. Also available are: Institutional Goals Inventory; Institutional Functioning Inventory; Student Interactional Report; and Students Reaction to College.

COUNSELING SERVICES ASSESSMENT BLANK (CSAB)

AUTHORS

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Austin, Texas 78712

Richard G. Weigel
Colorado State University
Fort Collins, Colorado 80523

DATE DEVELOPED

1968

INSTRUMENT TYPE

Opinion inventory

MEASUREMENT VARIABLES

Counseling needs of students; satisfaction with counseling

TARGET POPULATION

The instrument is designed for use with college students of both sexes.

INSTRUMENT FORMAT

The CSAB is a 27-item questionnaire including the following: six demographic items, two self-diagnosis items (rank orders), 16 items requiring client evaluations of self-growth and services provided (Likert-type scales), two items requiring client perceptions of the agency's role, and one open-ended item. A 'Not Applicable' response choice provides flexibility for agencies not offering all of the services listed in the CSAB.

ADMINISTRATION

Although administration time is not mentioned, 10 to 20 minutes seem adequate. The questionnaire is self-explanatory and is to be completed on an individual basis.

SCORING

The instrument is designed for machine scoring. Data processing services, as well as data bank information, are available from the publisher.

DESCRIPTION

Development. Until 1968, little research had been done on the overall effectiveness of university counseling centers, the assessment of student needs, or the nature of the clients themselves. The CSAB was developed to meet this need. During 1968-1975, normative data were collected from over 13,500 students at 49 American universities.

The CSAB was designed to provide university counseling centers with a means to describe clients demographically, assess their counseling needs, and evaluate their satisfaction with the counseling services provided. The demographic and needs assessment information provides feedback for program development, while the data on student satisfaction sheds light on program effectiveness. Additionally, it is hoped that the CSAB can be helpful in assessing student and agency changes over time and in making inter- and intra-agency comparisons.

Reliability. Two studies conducted by Davidshofer (1975) strongly suggest that the CSAB items are largely stable over time. In the first test-retest study, 56 former clients of the Counseling Center at Colorado State University were asked to complete CSAB's at one-month and two-year intervals after counseling. Overall, a moderate to high correlation was reported for each item with responses separated by any of the time intervals. Responses separated by a one-month interval yielded the highest median correlation of .73, while responses separated by a two-year interval provided the lowest median correlation of .58. Significance at the .01 level was found for nearly all evaluations.

The second study involved 218 students who had completed the CSAB about a month after counseling. Half this group (experimental) were later asked to complete a second CSAB, with special instructions to be "very frank" in order to eliminate any biasing effect. The other half (controls) were asked to complete another CSAB, but without special directions. (The second return rate for both groups were 79% and 67% respectively.) In this study, highly significant (.01 level) correlations were found for all items over a time interval ranging from two to six months. In addition, t tests were run to test for differences in stability between the experimental and control groups, and showed virtually no significant differences, indicating that the client-counselor relationship does not bias the CSAB self-report.

Validity. The publisher indicates that the CSAB has high face validity, which facilitates high return when using a mailing technique. This claim is supported by an examination of the items in terms of the relatively straightforward purposes for which they were designed.

An extensive discussion of evidence for the construct validity of the CSAB appears in the CSAB manual. The following points emerge: (1) self-report is likely to be the best source of demographic data and definition of needs, and self-report may be as valid as any other method for measuring therapeutic gain as well; (2) over 13,000 clients gave rankings of possible causes for their problem areas (vocational, personal, or educational) which seemed to fit theoretical construct for those problem areas, e.g., clients with educational problems tended to identify the cause as lack of environmental information and lack of skill, while clients with personal problems tended to identify the cause as self-conflict; (3) It appears that clients are unbiased in their evaluation of gains, as seen by standard deviations all less than 1.0 on a 5.0 scale, showing that clients gave negative as well as positive ratings; (4) finally, the highest gain items means were for self-information and environmental information, rather than conflict resolution--a result consistent with expectations that therapists may more readily impart information than solve complex problems of self-conflict.

SAMPLE ITEMS

7. For what reason(s) did you come to counseling? Would you please rank the reasons that apply in order of their importance to you (i.e., "1," "2," "3").

____ A vocational concern (career choice or planning for the future).

____ A personal concern (adjustments concerning behaviors, attitudes and feelings).

____ An educational concern (lack of academic skill or information, e.g., reading, study skills, university requirements and procedures, etc.).

Below we would like you to rank different aspects of your counseling by placing a mark in one of the areas on each scale that most clearly describes your reaction to the question. Answer all questions in terms of both the group and individual counseling YOU received.

9. I was able to gain information about myself (e.g., my abilities, behaviors, interest, personality, etc.).

Not at all Very much Not applicable

15. I felt that the information I disclosed to my counselor(s) would be

Blabbed all over campus Strictly confidential

18. How would you rate your overall GROUP counseling experience?

Extremely negative Extremely positive

AVAILABILITY

The instrument is copyrighted. The CSAB and accompanying manual may be purchased from:

Rocky Mountain Behavioral Science
Institute, Inc.
P.O. Box 1066
Fort Collins, Colorado 80521

REFERENCES

Bayless, P. A. Personality consistency as a predictor of vocational counseling success. Unpublished doctoral dissertation, University of Houston, 1971.

Davidshofer, C. O. The counseling services assessment blank: Is it reliable? Paper presented at the American Psychological Association Convention, Chicago, 1975.

Garrison, R. K. CSAB conducted 1972-1973. Eau Claire, Wisconsin: University of Wisconsin, University Counseling Services, 1973.

Harman, R. L. Client assessment of a university counseling center. Journal of Counseling Psychology, 1971, 18, 496-497.

Hibbs, C. W. Counseling outcomes: A study of counseling satisfaction variables in a university counseling service. Unpublished master's thesis, University of Iowa, 1973.

Hurst, J. C., Weigel, R. G., Thatcher, T., & Nyman, A. J. Counselor-client diagnostic agreement and perceived outcomes of counseling. Journal of Counseling Psychology, 1969, 16, 421-426.

Hurst, J. C., & Morrill, W. H. Personal vs. general requests for client feedback in the evaluation of counseling services. The Journal of College Student Personnel, 171, 12, 32-35.

CROSS REFERENCES

Comrey, A. L., Backer, T. E., & Glasser, E. M. (Eds.). A sourcebook for mental health measures. Los Angeles: Human Interaction Research Institute, 1973, 50.

Buros, O. K., (Ed.). Tests in Print II. Highland Park, New Jersey: Gryphon Press, 1974.

FAGOT OBSERVATION SCALE - TEACHER BEHAVIOR

AUTHOR

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Eugene, Oregon 97403

DATE DEVELOPED

1973

INSTRUMENT TYPE

Observation schedule

MEASUREMENT VARIABLE

Teacher behaviors

TARGET POPULATION

The instrument is designed to be used with adults of both sexes who are teachers of preschool-aged children.

INSTRUMENT FORMAT

The instrument is a checklist divided into three parts. Part I lists 15 teacher behaviors which might be observed when both teachers and children are present in free play sessions. Part II items are used to identify the sex of the child or group of children involved in the observation. Part III contains 32 items which are types of child behaviors which might be observed in free play.

ADMINISTRATION

The instrument is designed to be used by an observer to study child-teacher interactions. A description of the observer training process is provided in the reference below (Fagot, 1973).

SCORING

The instrument is not designed to be scored. Results of the observations are reviewed to discover how different types of teacher behavior relate to the preschool child's play behaviors.

DESCRIPTION

Development. The observation schedule was developed to determine how different types of teacher behavior relate to the task behavior of preschool children. It was tested in 1969-1970 by a research class of undergraduate psychology majors at a large nursery school consisting of several classes taught by separate sets of teachers. In 1970-1971, it was used again in another study of teacher-child interactions at the same nursery school. Part III is taken from the Fagot-Patterson Observation Schedule (1969).

Reliability. Interjudge reliability, measured by level of agreement among 14 undergraduate psychology majors who served as observers in the earlier study, is reported as 80% in coding teacher behaviors and as 99% in classifying child behaviors as task engaged or not task engaged. Interjudge reliability, measured by level of agreement among four trained observers in the subsequent study, is reported as 97% in coding teacher behaviors and as 99% in classifying child behaviors.

Validity. In three separate studies, two of which used the observation schedule, significant differences were obtained between teachers in high task behavior and low task behavior classes. Analysis of the data provided by the observation schedule indicated that teachers in the high task behavior classes gave fewer directions, criticized less, responded more to questions, and gave less physical affection than teachers in the low task behavior classes. These findings illustrate the capacity of the observation schedule to detect differences in teacher behavior and may be considered evidence of its validity.

SAMPLE ITEMS

Teacher Behaviors

Teacher ignores child
Teacher comments favorably
Teacher asks question
Teacher gives physical affection or comfort
Teacher sets up activity on child's request

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage. The author would like copies of studies using the instrument.

REFERENCES

Fagot, B. I. Influence of teacher behavior in the preschool. Developmental Psychology, 1973, 9(2).

Fagot, B. I. Male and female teachers: Do they treat boys and girls differently? Sex Roles, in press.

FAGOT-PATTERSON OBSERVATION SCHEDULES

AUTHORS

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Eugene, Oregon 97403

Gerald R. Patterson
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220 E. 11th Street
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DATE DEVELOPED

1969, revised 1977

INSTRUMENT TYPE

Observation schedules

MEASUREMENT VARIABLE

Sex-typed play styles

TARGET POPULATION

The instruments are designed to be used with pre-school children of both sexes who are between 18 months and 5 years of age.

INSTRUMENT FORMAT

The Fagot-Patterson Play Behaviors Observation Schedule (3-5 year olds) is divided into three parts. Part I, Child Behavior, lists 33 general behaviors which might be observed during children's play. Part II, Reactor, lists six types of individuals who might react to the child's behavior, and Part III, Reactions, lists 15 possible consequences of the interaction between the child and the reactor. The Fagot Play Styles Observation Schedule (18 months - 5 years) is a modification of this instrument. Another modification is the Parent-Child Interaction Schedule which consists of 46 child behaviors and 19 parent reactions.

ADMINISTRATION

Where the pre-school instruments are used, two observers are responsible for observing a group of approximately five children, one child at a time for 10-15 seconds at five-minute intervals. Directions for administration are included with the instrument. The parent-child instrument also is to be used by two observers in independent assessment of the same behaviors.

SCORING

The instruments are not designed to be scored. Codes for the child's behavior, the reactor, and the reactions at each observation point are recorded on a code sheet. Results of the observations are reviewed to identify sex-differences in play styles and sex-preferred play behaviors, as well as differences in the reactions of others.

DESCRIPTION

Development. The development of the Fagot-Patterson Play Behaviors Schedule (pre-school form) began with a pilot study conducted at two nursery schools, during which an exhaustive list was compiled of possible children's play behaviors and the social consequences of these behaviors. The Fagot Play Styles Observation Schedule is a revision of the earlier instrument with behaviors added so that it is appropriate for children between 18 months and 5 years.

Reliability. Interjudge reliability, measured by extent of agreement between pairs of observers, is reported at 99% in classifying child behaviors and at 92% in classifying the reactions of others, based on 120 observations for each of three pairs of observers. Interjudge reliability on the form intended for use in the study of child and parent interactions is reported at 93% in classifying child behaviors and at 83% in classifying parent reactions.

Validity. Validity studies as such are not reported. However, the Play Behaviors Observation Schedule has been used successfully in an initial study (1969) of masculine-feminine preferred behaviors in preschool children as well as in subsequent reseach (e.g., Fagot, 1977). In its initial application, the observation schedule supported the hypotheses that sex differences in play behavior are present in preschool children, that female teachers reinforce feminine behavior in both sexes, and that peers reinforce like-sex peers. The utility of the observation schedule has also been demonstrated in a subsequent study of cross-gender behavior of preschool children, where it illustrated that boys receive more criticism than girls from both peers and teachers for cross-sex behavior. The form of the observation schedule designed for use with parents has also been used successfully to show that parents react more favorably to children when they are engaged in same-sex behavior than when they exhibit cross-sex behavior.

SAMPLE ITEMS

Child Behaviors

Rough and tumble play (wrestling, running, etc.)

Play with clay

Play puppets

Sing, listen to records

Reactions

Initiate behavior

Physical restraint or aggression

Child is ignored

Close physical proximity, but no interaction of any kind

AVAILABILITY

The instrument and manuals may be obtained by contacting the first author.

REFERENCES

Fagot, B. I. & Patterson, G. R. An *in vivo* analysis of reinforcing contingencies for sex-role behavior in the preschool child. *Developmental Psychology*, 1969, *1*(5).

Fagot, B. I. Consequences of moderate cross-gender behavior in preschool children. *Child Development*, 1977, *48*.

Fagot, B. I. Sex differences in toddler's behavior and parental reaction. *Developmental Psychology*, 1974, *10*, 554-558.

Fagot, B. I. The influence of sex of child on parental reactions to toddler behavior. *Child Development*, 1978, *49*, 459-465.

FEAR OF SUCCESS SCALE (FOSS)

AUTHORS

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Stephen N. Allison
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University of Rochester
River Station
Rochester, New York 14627

DATE DEVELOPED

1976

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Fear of success

TARGET POPULATIONS

The instrument is suitable for use with college students and other adults.

INSTRUMENT FORMAT

The instrument consists of 27 statements in Likert format. Responses are marked on a 7-point scale from agree to disagree.

ADMINISTRATION

The Fear of Success Scale (FOSS) is designed for group administration. Directions are printed on the instrument. Approximate administration time is 15 minutes.

SCORING

The instrument is designed to be hand scored. For 16 items, agreement is keyed as high fear of success, and for the remainder, disagreement is keyed as high fear of success. Potential scores range from 27 to 189, with higher scores indicating higher fear of success.

DESCRIPTION

Development. An original pool of 35 items was developed through a rational process and then subjected to item analysis based on data contributed by approximately 400 students of both sexes. Twenty-seven items were retained. Item to total-item correlations range from .11 to .43 (males) and from .08 to .49 (females).

Reliability. Coefficient alphas of .69 for males and .73 for females are reported.

Validity. Several studies were conducted to establish the concurrent validity of the FOSS. Correlations of the FOSS with Horner's projective measure of fear of success were low (ranging from .18 to .30, depending on sample and sex of subjects) but significant at the .05 level. A negative correlation was found between fear of success as measured by the FOSS and achievement motivation as measured by Mehrabian's Scale of Result Achievement Motivation (1968). In order to establish the predictive validity of the FOSS, a study was conducted in which a sample of college students was administered the FOSS and then asked to perform an anagram task. Instructions did not affect performance. It was found that subjects with high fear of success scores performed less well on the anagram task and attributed success more to external factors and failure more to internal factors than did subjects with low FOSS scores.

SAMPLE ITEMS

Agree 1 2 3 4 5 6 7 Disagree

6. It is more important to play the game than to win it.

10. I am happy only when I am doing better than others.

14. Achievement commands respect.

18. People's behavior changes for the worst after they become successful.

26. It is extremely important to me to do well in all things that I undertake.

AVAILABILITY

The instrument is available from the author at duplicating cost plus postage, or it may be reproduced from the article cited below. The authors would like copies of studies using the instrument.

REFERENCES

Zukerman, M. & Allison, S. An objective measure of fear of success: Construction and validation. Journal of Personality Assessment, 1976, 40, (4), 422-430.

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FOLLOW-UP QUESTIONNAIRE ON THE SEMINAR/WORKSHOP ON WOMEN IN THE WORLD OF WORK

AUTHOR

Mary L. Ellis
Ellis Associates, Inc.
P.O. Box 466
College Park, Maryland 20740

DATE DEVELOPED

1974

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes toward women in the world of work; reactions of participants to seminar/workshop; actions taken toward issues discussed in workshops; understanding of women's problems in the work world

TARGET POPULATION

The instrument is designed for participants in workshops/seminars on women in the world of work, especially teachers, counselors, and administrators at all levels

INSTRUMENT FORMAT

The questionnaire consists of 26 questions in yes/no format. Questions pertain to reaction to the workshop, perceived changes in participants' attitudes and behaviors, attitudes toward women in the world of work, and relevant activities engaged in by participants following the workshop. In addition, a space is available for listing any other relevant activities engaged in by participants and any additional comments.

ADMINISTRATION

The questionnaire is administered to participants following the workshop/seminar and is to be returned within 10 days. Suggested administration directions are included with the instrument.

SCORING

The questionnaire can be hand-scored by tallying responses under each category (yes, no, no response). Percentages and means can be computed for each item. Additional comments should be classified under different categories of activities. Suggested scoring directions are included with the instrument.

DESCRIPTION

Development. In 1973-74, the Seminar/Workshop on the World of Work was conducted throughout the U.S. to further the professional development of leaders in vocational-technical education. The project was funded by the U.S. Office of Education. During the workshop, distinguished people spoke on such topics as the composition of the labor force, laws on equal education and employment opportunities for women and associated problems, and women's movement issues. In July and August 1974, a follow-up survey of 218 participants was conducted using this questionnaire, and 179 responses (82.19%) were received.

Validity. Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

		Yes	No	No Response
2.	Has your understanding of the educational and employment problems of girls and women increased as a result of the seminar?	___	___	___
7.	Do you feel girls and women are encouraged to prepare for non-stereotyped occupations?	___	___	___
11.	Do you consider women to be emotionally stable to hold high level policy-making positions?	___	___	___
22.	Have you encouraged counselor and teacher educators to develop programs concerning stereotyped occupations and careers?	___	___	___

AVAILABILITY

The questionnaire may be reproduced from the document cited in the references. It may be obtained from:

Center for Occupational Education
North Carolina State University at Raleigh
P. O. Box 5096
Raleigh, North Carolina 27607

REFERENCE

Ellis, M. L. (Ed.). Women at work. Career and Vocational Development Report No. 16. Raleigh: North Carolina State University School of Education, 1974.

FUNDAMENTAL INTERPERSONAL RELATIONS ORIENTATION - BEHAVIOR (FIRO-B and FIRO-BC, Children)

AUTHOR

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Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California 94306

DATE DEVELOPED

1958, 1966, revised, 1978

INSTRUMENT TYPE

Personality scale, awareness scale

MEASUREMENT VARIABLES

Behavior toward others and behavior wanted from others

TARGET POPULATIONS

The FIRO-B is designed for use with adults and has also been administered to high school students. The FIRO-BC is to be used with elementary school children in fourth, fifth and sixth grades.

INSTRUMENT FORMAT

FIRO-B consists of 54 items. FIRO-BC is in similar format and also contains 54 items. Both instruments comprise six Guttman scales, made up of items decreasing in popularity, so that an individual will accept items sequentially up to a given point and then begin to reject them.

ADMINISTRATION

Both scales are group administered and directions are printed on the forms. The FIRO-BC can be read and explained to non-readers. Administration time is approximately 10 to 15 minutes for each instrument. The instruments must be administered by qualified personnel approved by the publishers.

SCORING

The instruments are hand scored, and instructions are provided on the scoring templates. The FIRO-B yields a score which measures how an individual will act in interpersonal situations. In addition, it is unique among personality measures in that scores of two or more persons may be combined to predict how they will interact.

DESCRIPTION

Development. A facet design in combination with a Guttman scaling procedure was employed in the identification of scales and items comprising the FIRO-B. The instrument consists of two facets of social interaction, a direction facet and an interpersonal desire area facet. The *direction* facet is differentiated into two behavioral directions: expressed behavior towards others and wanted behavior from others. The *interpersonal desire area* facet is differentiated into three desires: inclusion in social interactions, control and power, affection and love. For each of the six cells of the facet design, representing all possible combinations of the two behavioral directions and three interpersonal desire areas, twelve items embodying the meaning of the cell were constructed. These were administered to a large subject sample (usually 1,000) consisting of college students and other adults, and then submitted to a Guttman scaling analysis to select the nine items most closely approximating a unidimensional scale. The final form of the FIRO-B consists of nine items in each of the six scales, with each scale comprised of items regularly decreasing in popularity so that it is possible to predict with 90% or better accuracy an individual's score on each item from a knowledge of the total number of items accepted. Intercorrelations of several of the FIRO-B scales, in a sample of 1,340 subjects, are positive but low. The manual accompanying the instrument cautions that it is important to be aware of the nonindependence of the scales and that it seems advantageous at this time to retain all the scales.

Reliability. Since all scales comprising the FIRO-B are Guttman scales, internal consistency is measured by reproducibility or the extent to which responses are predictable from a knowledge of scale scores. Reproducibility of the six scales averages .94. Test-retest reliability over a one-month period for four of the scales and over a one-week period for two scales, averaged .76 for all six scales in one administration to 125 college students.

Validity. Since the original development of the FIRO-B, there have been numerous studies investigating the concurrent, construct, and predictive validity of the instrument. These studies have investigated the relationship of FIRO-B to birth order, need affiliation, social class variables, scientific creativity, and differences among occupational groups. The reader is referred to the review of the literature from 1957-1977 included in the manual for an examination of study findings. The results of 14 studies conducted on different occupational groups are reported in detail. In general, the results are consistent with occupational stereotypes and provide support for the construct validity of the FIRO-B. High overall scores are reported for professions requiring considerable interpersonal contact, so that sales people score extremely high, followed by business and medical students, and school administrators. Occupations requiring more introverted activities and less interpersonal contact, such as architecture, physics, and Antarctic exploration, obtain low overall scores.

Norms. Because of the wide differences in sub-group norms, general norms are not considered appropriate, but mean scores and standard deviations are reported for various occupational groups and in some cases are reported separately for males and females.

Additional Information. The Children's Form, FIRO-BC, is an adaptation of FIRO-B scaled on fourth-, fifth- and sixth-grade children. Above that age level, FIRO-B has been used without difficulty. FIRO-BC, developed in collaboration with Marilyn Wood, employs the same methodology and relies on the same theoretical considerations as the FIRO-B.

In addition to the FIRO-B and FIRO-BC, several other instruments are described in the 1978 FIRO Manual including the following:

> FIRO-F (Fundamental Interpersonal Relations Orientation - Feelings): A parallel instrument to the FIRO-B except that it measures the feeling level rather than the behavorial level.
>
> LIPHE (Life Interpersonal History Enquiry): A measure of the retrospective account of the respondent's relations with parents before the age of six years.
>
> MATE (Marital Attitudes Evaluation): A measure of satisfaction with spouse on inclusion, control and affection at the level of behavior and feelings.
>
> VAL-ED (Educational Values): A measure of values regarding the "shoulds" of relationships in the school setting among child, teacher, administrator and community.

SAMPLE ITEMS

FIRO-B

1. I try to be with people.

52. I like people to act distant toward me.

    1. never 2. rarely 3. occasionally 4. sometimes
    5. often 6. usually

18. I let other people decide what to do.

27. I try to have close personal relationships with people.

1. nobody 2. one or two people 3. a few people
4. some people 5. many people 6. most people

FIRO-BC

I try to be very friendly and to tell my secrets to other children.

1. no children 2. one or two children 3. a few children
4. some children 5. many children 6. most children

I try to take part in clubs and school groups.

1. never 2. almost never 3. once in a while
4. sometimes 5. a lot of the time 6. almost all the time

AVAILABILITY

The instruments, manuals and scoring templates are copyrighted and may be purchased from Consulting Psychologists Press, Inc. The author would like copies of studies using the instrument.

REFERENCES

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JESNESS BEHAVIOR CHECKLIST

AUTHOR

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DATE DEVELOPED

1970

INSTRUMENT TYPE

Behavior rating scale

MEASUREMENT VARIABLE

Social behavior

TARGET POPULATION

The instrument is designed for adolescents and adults.

INSTRUMENT FORMAT

The checklist contains 80 items to be rated on a 5-point Likert-type scale from 'almost never' to 'very often'. Fourteen bipolar factors are measured as follows:

Unobtrusiveness vs. Obtrusiveness (8 items)
Friendliness vs. Hostility (5 items)
Responsibility vs. Irresponsibility (9 items)
Considerateness vs. Inconsiderateness (7 items)
Independence vs. Dependence (5 items)
Rapport vs. Alienation (5 items)
Enthusiasm vs. Depression (5 items)
Sociability vs. Poor Peer Relations (4 items)

Conformity vs. Non-conformity (7 items)
Calmness vs. Anxiousness (6 items)
Effective Communication vs. Inarticulateness (5 items)
Insight vs. Unawareness and Indecisiveness (6 items)
Social Control vs. Attention Seeking (4 items)
Anger Control vs. Hypersensitivity (4 items)

The checklist is available either as a self-contained test booklet or as a booklet and machine-scorable answer sheet. Two discrete forms may be used: one filled out by the participant (a self-rating), and one by an observer (same items as self-rating, worded in the third person, he).

ADMINISTRATION

A rater can usually complete the checklist in 10 to 20 minutes. An observer (i.e., not a self-rater) must have a good opportunity to observe and talk with the subject. The composite ratings of two or three observers are recommended. Persons who are not professionally trained can use the checklist.

SCORING

The manual contains detailed instructions for hand scoring with a scoring key. Computer scoring is suggested as most convenient for obtaining percentiles and T scores for both observer and self-appraisal scores. A computer profile also provides scores on Self-observer Distance, Self-observer Correlation, Self-observer Relative Position, Overall Observer Rating, and Overall Self-rating. In addition, the program indicates items pointing to specific problems perceived by the rater in the persons themselves.

DESCRIPTION

Development. This checklist was designed to provide a systematic way of recording data about social behavior. It was originally developed for use with male delinquents in institutions, but has now been modified for use with persons of any age in a variety of settings. In producing a profile of 14 behavior ratings, it can be used for evaluating behavioral change in school or institutional settings and for comparisons between self- and observer-ratings for use in counseling or research.

Composite ratings were collected for 258 subjects aged 13 to 21 (average age, 17), incarcerated in two California institutions. However, the manual notes the inadequacy of the norms and cites efforts to obtain normative data from a variety of populations, including samples of nondelinquents, by requesting checklist users to submit their data.

Reliability. Sixty-six delinquent males, aged 15 to 17, involved in an experimental treatment program in two California Youth Authority institutions were studied. Ratings were made approximately 30 days after the subject's arrival and again about seven months later, just before their release from the institution. Observer scores were based on the average rating of three staff members who observed the youths in different settings (school and living unit) and at different times of day. For the observer scores, stability coefficients for the 14 scales ranged from a low of .09 to a high of .51 with a median of .42. For the self-appraisal scores, stability coefficients ranged from a low of -.05 to a high of .58 with a median of .38. The manual cites unreliability of the instrument as a possible reason for the low correlations, although a significant amount of variation in scores may be due to behavior change in the subjects.

Forty-eight observers rated 122 institutionalized delinquents, aged 14 to 18. Uncorrected correlations range from .57 to .36. Using the Spearman-Brown formula, the author obtained corrected estimates based upon the average ratings of three observers. Correlations fell between .63 and .80.

Validity. Most available data pertain to an earlier but highly similar version of the checklist and do not apply to the current one. No validation is available for females or non-delinquent populations. Jesness conducted a study in 1970 that showed scale scores to be related to parole outcomes as predicted. Studies of 60 raters of 100 subjects and 80 raters of 100 subjects who rated themselves showed that ratings of the same trait by different raters correlate higher than ratings of different traits by the same rater.

SAMPLE ITEMS

Almost never
Not often
Sometimes
Fairly often
Very often

6. Poor sport. Cheats to win, shows anger or sulks when losing.

18. Helps others, even without apparent personal gain.

38. Gets school and/or work assignments done on time.

43. Steals or takes things without permission.

65. Is cheerful, laughs and smiles.

72. Is the recipient of ridicule, agitation, etc.

AVAILABILITY

The instrument is copyrighted and may be ordered from:

Consulting Psychologists Press
577 College Avenue
Palo Alto, California 94306

REFERENCES

Jesness, C. F. Jesness Behavior Checklist manual. Palo Alto: Consulting Psychologists Press, 1971.

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CROSS REFERENCES

Buros, O. K. (Ed.). The Eighth Mental Measurements Yearbook (Vol. I). Highland Park, New Jersey: The Gryphon Press, 1978.

MEHRABIAN'S ACHIEVEMENT MOTIVATION SCALES (PERSONAL REACTION INVENTORIES)

AUTHOR

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Los Angeles, California 90024

DATE DEVELOPED

1968

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLE

Achievement motivation

TARGET POPULATION

The instruments are designed to be used with individuals who are of at least secondary school age.

INSTRUMENT FORMAT

The instrument package consists of two instruments, one for males and one for females. Both instruments contain 26 items in Likert

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format. Response alternatives range from +3 (strong agreement) to -3 (strong disagreement).

ADMINISTRATION

The instrument is designed for group administration and requires approximately 15 minutes for completion. Directions for administration are printed on the instrument.

SCORING

Half of the items in each scale are written such that a positive response (+1 to +4) indicates that the Motive to Achieve Success (MS) is greater than the Motive to Avoid Failure (MAF); the other half of the items are written to indicate the reverse. The total score is obtained by subtracting the total MAF scores from the total MS scores. Scoring directions are provided in a separate booklet, A Manual for the Mehrabian Measures of Achieving Tendency (Mehrabian & Bank, 1975).

DESCRIPTION

Development. The Mehrabian Achievement Motivation Scales (Personal Reaction Inventories) are based on J. W. Atkinson's model of resultant achievement motivation, 1964. According to the model, high achievers have a stronger motive to achieve success (MS) than a motive to avoid failure (MAF). The original Mehrabian Scales consisted of 34 items each. Eight items were later deleted from each scale. The resulting 26-item scales correlate .74 and .92 with the earlier male and female versions.

Reliability. Internal reliability, using the KR-20 formula, is reported at .72 and .61 for 102 male and 100 female college undergraduates, respectively. The KR coefficients were based on the achieving tendency items embedded in a larger questionnaire, a procedure which attenuated the obtained reliabilities. Split-half reliabilities of .69 and .55 for 158 male and 160 female undergraduates have also been reported. Test-retest reliabilities obtained in a population of advanced college undergraduates, with a 10-week interval, are reported at .78 for males (n = 110) and at .72 for females (n = 111). These coefficients are based on the 34-item versions of the tests. Test-retest reliabilities for the 26-item versions are reported as on the average .70 and .60 for the male and female scales, respectively.

Validity. The discriminant and convergent validity of the Mehrabian Achievement Motivation Scales has been tested in a large number of studies. The scales do not correlate with affiliative tendency or birth order and only sporadically with social desirability, providing evidence of discriminant validity. Evidence of convergent validity is provided by the findings that achievement tendency scores correlate inversely with test anxiety and locus of control and positively with personal adjustment variables. The measures also successfully separated students preferring a more difficult course of study from those preferring an easier course. Locus of control has also been shown to moderate achieving tendency, such that subjects high in achievement motivation do best when they perceive task difficulty as moderate and when they are led to believe effort is as important a factor as ability in succeeding at a given task, whereas low achievers do best when they perceive task difficulty as low. The scale developed for use with females is reported not to correlate as well or as consistently as the male scale.

Norms. Normative data are reported separately for the male and female scales as follows: males (M = 9, SD = 18), females (M = 5, SD =19).

SAMPLE ITEMS

+3 = Strong agreement
+2 = Moderate agreement
+1 = Slight agreement
0 = Neither agreement nor disagreement
-1 = Slight disagreement
-2 = Moderate disagreement
-3 = Strong disagreement

I more often attempt difficult tasks that I am not sure I can do than easier tasks I believe I can do.

I would rather have a job in which my role is clearly defined by others and my rewards would be higher than average, than a job in which my role is to be defined by me and my rewards are average.

I would prefer a well-written informative book to a good movie.

AVAILABILITY

The scales and the accompanying manual are available from the author at duplicating costs plus postage and payment of a permission fee.

REFERENCES

Mehrabian, A. A questionnaire measure of individual differences in stimulus screening and associated differences in arousability. Environmental Psychology and Nonverbal Behavior, Spring 1977, 1(2).

Mehrabian, A. Questionnaire measures of affiliative tendency and sensitivity to rejection. Psychological Reports, 1976, 38, 199-209.

Mehrabian, A. Male and female scales of the tendency to achieve. Educational and Psychological Measurement. 1968, 28, 493-502.

ORY ACHIEVEMENT MOTIVATION SCALE

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University of Kansas
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DATE DEVELOPED

1975

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Achievement motivation

TARGET POPULATION

The instrument is designed for use with college and high school students of both sexes.

INSTRUMENT FORMAT

The instrument consists of 106 items in Likert format.

ADMINISTRATION

The instrument is designed for group administration, and administration time is estimated at 30 to 40 minutes. Directions are provided with the instrument. Respondents indicate agreement or disagreement on a 4-point scale by marking their answers either on the instrument itself or on a separate answer sheet.

SCORING

Scoring procedures and a scoring key indicating direction of scoring for each item are provided with the instrument. An individual score may be computed by summing points across items, reversing scale points when indicated. Scores are computed for each of the 14 identified subscales.

DESCRIPTION

Development. The development of the instrument began with the construction of 153 items to reflect the results of a large number of empirical studies of achievement motivation. After field testing and editing for reading comprehension, a preliminary form of the instrument was administered to 1,324 subjects, including approximately equal numbers of males and females, drawn from eight colleges and universities. Factor analysis of the data contributed by these subjects resulted in the identification of 14 factors as dimensions of achievement motivation and one undefined factor. The identified factors are described as: (1) task orientation, (2) perseverence, (3) parental affection, (4) fear of failure, (5) social acceptance, (6) reaction to success/failure, (7) future orientation, (8) involvement, (9) parental restriction, (10) test taking behavior, (11) competitiveness, (12) independence, (13) rigidity, and (14) anticipatory behavior. Items not loading on any factor were eliminated, resulting in a final 106-item scale. These developmental procedures may be taken as evidence of content validity.

Reliability. Test-retest reliability for the 14 subscales (n=92) after an interval of six weeks, ranges from .32 to .84. Internal consistency as measured by coefficient alpha, ranges from .36 to .75 for the 14 subscales.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Disagree
4 = Strongly disagree

1. I am highly motivated when I know that a task is difficult.

8. I will often keep working at something even if it seems hopeless.

19. My parents (guardians) seldom discouraged me from doing new things as I grew up.

25. I become frustrated easily.

37. Being popular is more important than just being successful.

41. I feel as though I can take short breaks after successfully completing one stage of a large project.

AVAILABILITY

The scale items may be reproduced from the ERIC document cited in the references. A copy of the instrument, administration and scoring directions and scoring key can be obtained from the authors. The instrument is copyrighted. The authors would like copies of studies using the instrument.

REFERENCES

Ory, J. C. & Poggio, J. P. The development and empirical validation of a measure of achievement motivation. Paper presented at the meeting of the American Educational Research Association, Washington, D.C., March-April, 1975. (ED 124 567)

Ory, J. C. & Poggio, J. P. The empirical development of a measure of achievement motivation. Journal of Educational Measurement, 1973, 13, 157-160.

Ory, J. C. & Helfrich, L. M. A study of individual characteristics and career aspirations. Vocational Guidance Quarterly, 1978, 27, 43-49.

PAPPO FEAR OF SUCCESS QUESTIONNAIRE (FOSQ)

AUTHOR

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New York, New York 10024

DATE DEVELOPED

1972

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Fear of success in academic situations

TARGET POPULATION

The Pappo Fear of Success Questionnaire (FOSQ) is designed for use with college students of both sexes.

INSTRUMENT FORMAT

The instrument contains 83 items in true/false format. Seventy-five items are phrased in the positive direction and eight in the negative direction.

ADMINISTRATION

The FOSQ is designed for group administration. Directions are not printed on the form, but each respondent marks 'yes' or 'no' for each item, thereby indicating that the statement is or is not characteristic of his/her behavior or beliefs. Administration time is approximately 15 minutes.

SCORING

The FOSQ does not yeild individual scores and is not to be used for diagnostic purposes. Scores are to be used to identify groups of people who are relatively high or relatively low in fear of success. Scoring directions and a scoring key are available from Dr. Donnah Canavan-Gumpert, Department of Psychology, Boston College, Boston, Massachusetts 02167.

DESCRIPTION

Development. In order to develop the Pappo FOSQ, statements were constructed to elicit information about the attitudes, behaviors and emotional reactions of persons who fear success. In addition to the criterion that the content of the items be derived directly from a conceptual framework which assumes that anxiety interference is the major dynamic in the origin of the fear of success, the items were designed to elicit a person's reaction to specifically described situations and to avoid sex-stereotyped activities. The final questionnaire consists of 83 items measuring six factors identified through factor analysis: (1) negative affective reaction to success cues; (2) repudiation of competence or motivation; (3) sabotage of success; 4) preoccupation with evaluation and competition; (5) self-doubt and negative self-evaluation; and (6) distractibility and impairment of concentration. Several administrations indicate no important differences in the way men and women answer the FOSQ.

Reliability. Internal reliability, using the KR-20 formula, is estimated at .89.

Validity. The concurrent validity of the FOSQ was assessed by correlating scores on the instrument with scores on three well-known personality tests measuring traits related to the fear of success. Persons scoring high in fear of success were also more likely to score as "externals" on Rotter's Internal-External Scale, to show negative self-esteem on the Rosenberg Self-Esteem Scale, and to express anxiety in academic testing situations as measured by the Alpert and Haber convergent validity of the FOSQ. The predictive validity of the FOSQ has been studied in an experiment designed to test the prediction that persons who fear success, as measured by the FOSQ, will sabotage their performance when success is imminent. Male and female subjects, identified by their scores as high or low in fear of success, were informed of their "successful" or "average" performance after the first half of a reading comprehension test. As predicted, high scorers on the FOSQ deteriorated in performance on the second half of the reading comprehension test if they were informed of initial success, while all other subjects, including success fearers given "average" feedback, improved in actual performance. No differences were obtained between male and female subjects, suggesting that both sexes behave similarly as a function of fear of success. These results were replicated in a second experiment. These experiments provide some evidence of the predictive validity of the FOSQ.

SAMPLE ITEMS

	True	False
If someone calls attention to me when I'm doing well, I often feel awkward.		
Persuasive people can influence my ideas.		
When playing competitive games, I make more mistakes near the end than at the beginning.		
I try the hardest when my work is being evaluated.		
Even though I feel I have a lot of potential, I sometimes feel like a phoney or a fraud.		

AVAILABILITY

The instrument may be reproduced from The success fearing personality (see references). The scoring key may be obtained from Dr. Donnah Canavan-Gumpert, Department of Psychology, Boston College, Chestnut Hill, Massachusetts, 02167.

REFERENCES

Canavan-Gumpert, D., Garner, K., & Gumpert, P. The success-fearing personality. Lexington, Massachusetts: Lexington Books, 1977.

Konstam, V. & Gilbert, H. B. Fear of success, sex role orientation, and performance in differing experimental conditions. Psychological Report, 1978, 42, 519-528.

Pappo, M. Fear of success: A theoretical analysis and the construction and validation of a measuring instrument. Unpublished doctoral dissertation, Columbia University, 1972.

QUALITY OF LIFE DIMENSIONS

AUTHORS

John C. Flanagan
Darlene Russ-Eft
American Institutes for Research
P.O. Box 1113
Palo Alto, California 94302

DATE DEVELOPED

1975

INSTRUMENT TYPE

Interview guide, mail survey

MEASUREMENT VARIABLE

Quality of life

TARGET POPULATION

The instrument was designed for use with adults of both sexes.

INSTRUMENT FORMAT

The instrument consists of two multi-part questions. The first asks the subject to rate the importance of 15 life components on a 5-point scale from 'Very Important' to 'Not At All Important'. The second asks subjects to rate how well their needs are met in the same 15 areas, also on a 5-point scale from 'Very Well' to 'Not At All Well'.

ADMINISTRATION

The instrument was designed to be used during individual interviews. The interviewer marks answers in a response booklet. When used as a written survey directions are provided on the form.

SCORING

It is suggested by the authors that the instrument can be used to determine the effects of social programs on the individual's perception of the quality of his or her life as defined in terms of the individual's personal values. The authors have compared responses to the 15 quality of life components with responses to questions in in-depth interviews in order to understand the causes for the response patterns. Additional information on the uses of the instrument may be found in Flanagan, 1978, as cited in the references.

DESCRIPTION

Development. The Quality of Life Dimensions were developed as part of a research effort conducted by the American Institutes for Research directed toward improving the quality of life of Americans. The first step in the development of an interview guide was to define the critical requirements of a person's quality of life. In thirty-five areas around the United States, over 4,500 critical incidents were gathered through interviews with nearly 3,000 people of various ages, races, and backgrounds. Supplementing these interviews, 2,000 additional incidents were obtained from an 11-year follow-up survey of AIR's Project TALENT participants. The 6,500 critical incidents were sorted using an inductive process into a set of 15 categories or quality of life components. These are grouped under the following major areas: (1) Physical and Material Well-Being; (2) Relations with Other People; (3) Social, Community, and Civic Activities; (4) Personal Development and Fulfillment; and (5) Recreation.

Validity. The method by which the instrument was developed provides substantial evidence of its content validity. The 15 Quality of Life components have been used in two national surveys, the first of which was completed in 1975 in a Project TALENT follow-up study funded by the Field Initiated Studies Program of the National Institute of Education. Three-hour interviews were conducted with a nationally representative age cohort of 1,000 persons who were 15 years old when they participated in the original TALENT survey in 1960. These interviews covered information on education, employment, and other areas in addition to the perceived quality of life. A second survey, funded by the Administration on Aging, Office of Human Development, Department of Health, Education, and Welfare, involved nationally representative cohorts of 1,000 50-year-olds and 1,000 70-year-olds. The instrument was also used in written form in the 11-year follow-up of the ninth graders from the Project TALENT sample (Wise, McLaughlin & Gilmartin, 1977).

SAMPLE ITEMS

A = Very Important
B = Important
C = Moderately Important
D = Only Slightly Important
E = Not At All Important

At this time in your life, how important to you is ________________?

A. Material comforts -- things like a desirable home, good food, possessions, conveniences, an increasing income, and security for the future.

B. Health and personal safety -- to be physically fit and vigorous, to be free from anxiety and distress, and to avoid bodily harm.

N. Reading, listening to music -- or observing sporting events or entertainment.

O. Participation in active recreation -- such as sports, traveling and sightseeing, playing games or cards, singing, dancing, playing an instrument, acting, and other such activities.

AVAILABILITY

The Quality of Life Dimensions and examples of the related interview questions are included in the document by Flanagan & Russ-Eft (1975) cited in the references. The publication may be purchased through the Publications Office at the American Institutes for Research.

REFERENCES

Flanagan, J. C. Identifying opportunities for improving the quality of life of older age groups. Final Report for Administration on Aging, Office of Human Development Services, Department of Health, Education, and Welfare, Washington, D.C., Grant No. 90-A0514. Palo Alto, California: American Institutes for Research, June 1979.

Flanagan, J. C. A research approach to improving our quality of life. American Psychologist, 1978, 33 (2), 138-147.

Flanagan, J. C., & Russ-Eft, D. Identifying opportunities for improving the quality of life of older age groups. Progress Report prepared for the Administration on Aging, Department of Health, Education, and Welfare, Washington, D.C. Palo Alto, California: American Institutes for Research, June 1978.

Flanagan, J. C., & Russ-Eft, D. An empirical study to aid in formulating educational goals. Palo Alto, California: American Institutes for Research, June 1975.

Russ-Eft, D., Sprenger, M., & Beever, A. Antecedents of adolescent parenthood and consequences at age 30. The Family Coordinator, 1979, 28, 173-179.

Russ-Eft, D., & Steel, L. The contribution of education to adult's quality of life. Educational Gerontologist, in press.

Steel, L. Life span perspective on adult's achievement and life quality. Paper presented at the annual meeting of the American Psychological Association, Toronto, August 1978.

Wilson, S. R., & Flanagan, J. C. Quality of life as perceived by 30-year-old Army veterans (Supplementary Report). Palo Alto, California: American Institutes for Research, November 1974.

Wise, L. L., McLaughlin, D. H., & Gilmartin, K. J. The American citizen: 11 years after high school (Vol. II). Palo Alto, California: American Institutes for Research, September 1977.

A QUICK QUIZ ON TITLE IX

AUTHOR

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N-230 MRV Hall
Cornell University
Ithaca, New York 14853

DATE DEVELOPED

1977

INSTRUMENT TYPE

Cognitive test

MEASUREMENT VARIABLE

Knowledge about Title IX regulations

TARGET POPULATION

The instrument is designed for use with teachers, counselors and other school personnel.

INSTRUMENT FORMAT

The instrument consists of 12 statements in true/false format.

ADMINISTRATION

The instrument is designed for group administration. Directions are provided, and approximate administration time is 15 minutes.

SCORING

An individual score is the number of items correct. A scoring key is provided.

DESCRIPTION

Development. The instrument is one of several included in a sourcebook developed under the auspices of the Office of Occupational and Continuing Education, New York State Education Department, as a self-study guide intended for vocational educators. Items are based on the Summary of Regulations for Title IX of the 1972 Education Amendments prepared by PEER, Project on Equal Rights. Items for this and other instruments in the sourcebook were prepared by vocational educators and were reviewed by several faculty members of the New York State College of Human Ecology.

Validity. Content validity was established by the developer through design of a content matrix matching each quiz item with a legislative statement.

SAMPLE ITEMS

1. All public educational institutions must have grievance procedures for resolving student and employee complaints alleging discrimination on the basis of sex.

9. Though equal expenditures for separate-sex sports is not required, equal opportunity is.

12. Educational institutions are required to have records available demonstrating that they are complying with the requirements of the law.

AVAILABILITY

The instrument is available in the report cited in the references, which may be purchased from:

Media Services
College of Human Ecology
Cornell University
Ithaca, New York 14853

REFERENCES

Community Service Education Department, New York State College of Human Ecology. Expanding adolescent role expectations. Information, activities, resources for vocational educators. Ithaca, New York, Cornell University, 1977. (ED 147 544)

ROKEACH VALUE SURVEY
(English and Spanish Versions)

AUTHOR

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Translated by:
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Juanita A. Dingman
Hispanic Research Center
Fordham University
Bronx, New York 10458

DATE DEVELOPED

1967; Spanish translation 1975

INSTRUMENT TYPE

Values scale

MEASUREMENT VARIABLES

Personal, terminal, and instrumental values; sex role perception

TARGET POPULATION

Both versions of the instrument were designed for use with children and adults of both sexes. The Spanish version was designed especially for foreign-born, Spanish-speaking college students residing in the United States.

INSTRUMENT FORMAT

Each scale consists of a list of 18 adjectives (or, in Spanish, nouns and noun phrases) which the subject is to rank-order as they apply to the subject's own life or as they are perceived to apply to the lives of members of the opposite sex.

ADMINISTRATION

The instrument is designed for individual or group administration. The instructions for the Spanish version are printed in Spanish on the instrument and are to be read aloud to the subjects. Approximate administration time is 15 to 20 minutes for the terminal and instrumental scales.

SCORING

The instrument yields a rank-ordering from 1 to 18 of values for each subject for terminal values and instrumental values.

DESCRIPTION

Development. The Rokeach Value Survey was developed in conjunction with a research program concerned with examining the relationships among values, attitudes, beliefs and behavior. The program concentrated on the measurement of values rather than of attitudes, since values were considered to be a determinant of attitudes (defined as an organization of several beliefs focused on a specific object or situation) as well as of behavior. Furthermore, it was assumed that a person possesses fewer values than attitudes and that the value concept should be a more economical analytical tool for describing differences and similarities among groups. In the development of the original instrument, a distinction was drawn between instrumental values (defined as belief that certain modes of behavior are worth striving for) and terminal values (defined as a belief that certain end-states of existence are worth striving for). A series of lists of instrumental and terminal values were assembled, and several versions of the scale were pilot tested. The final form (Form D) of the instrument consists of 18 instrumental and 18 terminal values printed on pressure-sensitive gummed labels that can easily be moved about.

The Spanish version of the Rokeach Scale of Values is a translation of the 18 instrumental values only. It was developed to explore sex role definitions among persons of Latin background living in the United States and to provide preliminary data for cross cultural comparisons in values. In translating, the adjectives comprising the English version were converted to one-word or multiple-word nouns because Spanish adjectives must be declined according to gender and it was thought that the masculine or feminine endings of adjectives might contaminate the results.

Reliability. Test-retest reliabilities for the Rokeach Scale of Values are reported to be in the .70s after seven weeks. Reliability for the Spanish version is not reported.

Validity. Data on the factorial dimensions along which the instrumental and terminal values of the English version of the scale are organized, on the relationship between values and attitudes, and on differences and similarities in values of many groups differing in sex, age, education, occupation, religion, and politics have been obtained and provide support for the construct validity of the instrument. Support for the predictive validity of the Spanish version of the instrument is provided by the results of a study in which the scale was administered to a sample of 160 Cuban and other Latin students, including equal numbers of males and females, and in which it detected differences between male and female subjects in perception of the values of females. The results of this study were interpreted as confirming the existence of a female stereotype in a subculture of American society which is very similar to the stereotype prevalent in the dominant society. Latin men see females as more stereotypically feminine than females in this subculture see themselves.

SAMPLE ITEMS

Subjects rank the values from 1 to 18.

(English version)	(Spanish version)
Broadminded _____	Ausencia de prejuicios _____
Honest _____	Honestidad _____

Logical _____ Raciocinio _____

Loving _____ Ternura _____

AVAILABILITY

The instrument is copyrighted and may be purchased from:

Halgren Tests
873 Persimmon Avenue
Sunnyvale, California 94087

Permission to use the instrument in Spanish or other languages should also be obtained from Halgren Tests. The author would like copies of studies using the instrument.

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Calista, D. J. Value priorities of Japanese youth and the impact of the postbourgeois transformation. Comparative Political Studies, 1978.

Feather, N. T. Value importance, conservatism, and age. European Journal of Social Psychology, 1977, 7, 241-245.

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CROSS REFERENCES

NOTE: Additional references will be found in *Psychological Abstracts* and in *Social Sciences Citation Index*.

SEX ROLE STEREOTYPING AND EDUCATIONAL EQUITY IN PHYSICAL EDUCATION (SRS/EEPE KNOWLEDGE TEST), FORMS A AND B

AUTHOR

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WEEA Project: Physical Education
for Educational Equity
College of Health, Physical Education,
Recreation, and Athletics (HPERA)
Eastern Kentucky University
Richmond, Kentucky 40475

DATE DEVELOPED

1978 (under development)

INSTRUMENT TYPE

Cognitive test

MEASUREMENT VARIABLES

Knowledge of sex role stereotyping and educational equity in physical education

TARGET POPULATION

The instrument was designed for use with preservice and inservice secondary level physical education teachers.

INSTRUMENT FORMAT

The two forms of the test each contain 45 multiple choice items.

ADMINISTRATION

The test is designed for group administration, and directions are printed on the test booklet. Approximate time for completion is 40 minutes.

SCORING

Scoring keys are provided. An individual score is the number of items correct.

DESCRIPTION

Development. The Sex Role Stereotyping and Educational Equity in Physical Education (SRS/EEPE Knowledge Test) was developed as part of a validation plan to determine the effectiveness of instructional materials to help preservice and inservice secondary physical education teachers acquire basic knowledge about sex role stereotyping and educational equity in physical education. The content for items was limited to information included in eight instructional modules and encompasses the following areas: (1) basic information on stereotyping and discrimination; (2) historical perspectives; (3) effects of sex role stereotyping; (4) biological sex differences; (5) Title IX; (6) curriculum development; (7) teacher behavior; and (8) evaluation. Enough items were written so that alternate forms of the test could be developed, each containing questions covering the same content. Following a review of items for accuracy, clarity and relevance, parallel items were grouped together, and items from each group were selected randomly for Form A and Form B. Content validity of the test is based upon the content of the modules.

Reliability. Alternate forms of the test were administered to a small group of physical education teachers (n=26) to evaluate equivalence. Preliminary indications are that the forms have similar means and standard deviations. A correlation coefficient of .77 was found between alternate forms of the tests. Alpha coefficients for Form A were .76, for Form B, .74. Validity and reliability are currently under investigation using larger groups.

SAMPLE ITEMS

5. What advances were made during the Renaissance that promoted physical activity for women?

    1. Some schools gave attention to physical education but it was for boys only.

    2. Educators like Locke and Rabelais encouraged the idea of physical activity for girls and designed curriculums to promote their participation.

3. Schools were started for girls which included organized physical activity.

4. The new emphasis on education was extended to women, and girls were encouraged to participate in physical activity.

10. Which of the following reasons best accounts for the fact that women are more sedentary and thus less physically fit than men?

    1. They have been taught to be passive and inactive.

    2. Their abilities to perform fine motor activities are highly developed and thus diminish their interest in large motor activities.

    3. Physiological capacities account for lower levels of physical activity.

    4. Psychological factors cause women to develop less interest in physical activities.

16. How does the structure of the female hip affect running efficiency?

    1. The wider distance between the hip joints drastically influences running efficiency.

    2. The running gait of female may be marginally less efficient than male.

    3. The structure of the female hip causes stress to the joint that can be injurious.

    4. The structure of the hip allows for greater stability and thus for greater running efficiency.

AVAILABILITY

A copy of the test is available at duplicating cost plus postage from:

Dr. Ann Uhlir, Project Director
Physical Educators for Educational
  Equity Project Office
Department of Physical Education
Eastern Kentucky University
Richmond, Kentucky 40415

SIXTEEN PERSONALITY FACTOR QUESTIONNAIRE (16 PF)

AUTHOR

Raymond B. Cattell
Department of Psychology
University of Illinois
Urbana, Illinois 61801

DATE DEVELOPED

1949, revised 1970, 1978

INSTRUMENT TYPE

Personality test

MEASUREMENT VARIABLES

Personality factors

TARGET POPULATION

The instrument is designed to be used by adults 16 years of age and older. Forms A and B are designed for individuals with a 7.5 grade reading level, Forms C and D for those with a 6.5 grade reading level, and Form E for those with a 3.3 grade reading level.

INSTRUMENT FORMAT

The Sixteen Personality Factor Questionnaire (16 PF) is available in 24 languages and in adapted versions for five other English-speaking cultures. There are five instrument forms. Forms A and B contain 187 items each. Forms C and D contain 105 items each. The major differences between these two sets of forms are the amount of time needed for completion and the required reading level. Form E contains 128 items. The Handbook for the 16 PF, which may be purchased separately, provides detailed instructions for the selection of the most appropriate forms to use with a given target population. Developers of the instrument urge that at least two of the forms be used in combination whenever possible (e.g., A + B, or C + D). Each form of the instrument is designed to measure the following 16 personality factors:

Reserved vs. Outgoing
Less intelligent vs. More intelligent
Affected by feelings vs. Emotionally stable
Submissive vs. Dominant
Serious vs. Happy-go-lucky
Expedient vs. Conscientious
Timid vs. Venturesome
Tough-minded vs. Sensitive

Trusting vs. Suspicious
Practical vs. Imaginative
Forthright vs. Shrewd
Self-Assured vs. Apprehensive
Conservative vs. Experimenting
Group-dependent vs. Self-sufficient
Uncontrolled vs. Controlled
Relaxed vs. Tense

The Manual for the 16 PF provides: (1) a description of the design and construction of the test; (2) discussion of the validity and consistency of the scales; (3) instructions for administration and scoring; and (4) interpretation of the primary factors and procedures for calculating second-order factor scores. The Handbook for the 16 PF provides indepth discussions of: (1) the main uses of the test; (2) test design and construction; (3) psychometric properties of the scales; (4) standardization; (5) the use of primary and second-order source traits in psychological prediction; and (6) criterion evidence of scale usefulness in vocational guidance, educational and social analyses, and clinical psychology. Form E has a separate manual. A Guide to the Clinical Use of the 16 PF is designed to familiarize the user with the psychological dynamics of the test.

ADMINISTRATION

The instrument is designed for either group or individual administration. Form E, designed for individuals with lower reading ability, may be administered orally. All forms of the test are untimed but estimates of time needed for completion are: Forms A and B, 40 to 60 minutes; and Forms C, D, and E, 30 to 40 minutes.

SCORING

The instrument may be scored by hand with a stencil key or by machine. For this reason, two different types of answer sheets are available. Computer scoring of the machine answer sheets is available through the Test Services Division of the Institute for Personality and Ability Testing (IPAT). IPAT also makes available several types of computer interpretation service which provides a narrative report from an individual profile.

DESCRIPTION

Development. Items appearing in the 16 PF instrument are based on documentation of 30 years of basic research and development in personality traits. Originally, several thousands of items were subjected to factor analyses. The final instrument items are those which continued to have significant validity after ten successive factor analyses on different samples. The 16 factor scales are stable and independent.

Reliability. Reliability data are reported in terms of (a) dependability, i.e., short term test-retest correlations and (b) stability, i.e., retest after a longer interval. Dependability coefficients for each of the 16 variables, as measured by test forms used individually, range from

.54 to .92. When measured by forms used in combination, the range of coefficients is .45 to .93 (Form A + Form B) and .67 to .86 (Form C + Form D). Stability estimates are given for four samples, two retested after four years from .35 to .88 after a two-month interval, and from .21 to .64 after a four-year interval.

Validity. Construct validity of the scales has been evaluated by correlating the total scale score with each of the 16 pure factors it was designed to measure. Validity scores, reported for single forms and for various combinations of the forms, range from .44 to .94.

Norms. Norms are reported for the general adult population, university and college undergraduates, and high school students (juniors and seniors), as well as for various other subsamples, with tables for individual forms and for frequently encountered combinations of the forms. The norm tables are published and available separately as tabular supplements to the 16 PF Handbook. Supplement No. 1 contains norms for Forms A and B. Norms for Forms C and D are given in Supplement No. 2. Norms for Form E are in the Form E manual.

SAMPLE ITEMS

Directions: Answer as honestly as possible what is true of you. Do not merely mark what seems "the right thing to say" to impress the examiner.

5. I feel a bit nervous of wild animals even when they are in strong cages.

    a. yes (true)
    b. uncertain
    c. no (false)

10. On social occasions I:

    a. readily come forward,
    b. in between,
    c. prefer to stay quietly in the background.

15. It would be good for everyone if vacations (holidays) were longer and everyone had to take them.

    a. agree
    b. uncertain
    c. disagree

AVAILABILITY

The instrument package is copyrighted. It is published by and may be ordered from:

Institute for Personality and Ability Testing
1602 Coronado Drive
Champaign, Illinois 61280

The author would like copies of studies using the instrument.

Other Instruments

REFERENCES

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CROSS REFERENCE

Eber, H. W. Personality and psychopathology inventories. In B. Bolton (Ed.), *Handbook of measurement and evaluation in rehabilitation*. Baltimore: University Park Press, 1976.

SPATIAL EXPERIENCE QUESTIONNAIRE (SEQ)

AUTHORS

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Roland Gray
Industrial Education
Purdue University
West Lafayette, Indiana 47907

DATE DEVELOPED

1977

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLE

Spatial experiences and abilities

TARGET POPULATION

The instrument was designed for use with college students of both sexes.

INSTRUMENT FORMAT

The questionnaire consists of three sections and a total of 64 items. The first section contains a list of activities which may be influential in developing spatial abilities. Subjects respond by indicating both the extent of participation in and enjoyment of each activity. Section 2 contains a list of tasks involving visualization and manipulation of spatial experiences, which subjects rate as to the ease with which they can perform them. In section 3 respondents are asked to indicate the parent or sibling most influential in four significant areas shaping career plans and interests and to classify their parents' careers and their own anticipated careers.

ADMINISTRATION

The instrument is designed for group administration, and directions are printed on the form. Administration time is approximately 15 minutes.

SCORING

The questionnaire is designed for use with IBM Mark-Sense cards. Subscores are calculated for Experience, Enjoyment, Spatial Experiment and Spatial Ability. The last section is not scored. Scoring directions are available from the author.

DESCRIPTION

Development. The Spatial Abilities Questionnaire (SEQ) was developed to measure extent of participation and extent of enjoyment of experiences that might be relevant to the development of spatial abilities. Development of the instrument began with the compilation of activities, considered to be related to the development of spatial ability, in which young adults might have engaged while growing up. A panel of judges classified these experiences as male sex-typed, female sex-typed or common to both sexes. A preliminary form of the questionnaire was administered to 116 university students, and items attracting a low frequency of response were eliminated. In its final form, the instrument contains 25 items listing activities which may be influential in developing spatial abilities (playing checkers, taking pictures, etc.), yielding three scores of participation, enjoyment and total score, four items asking the respondent to estimate the difficulty he or she would experience performing tasks involving visualization and manipulation of spatial experiences, and one item asking the respondent to identify an influential family member in his or her development. The questionnaire has been administered to a sample of college students and the results analyzed by high and low spatial groups within each sex.

Validity. Some evidence of predictive validity is provided by the one study conducted with the instrument. The SEQ was administered to 242 students, including 124 males and 118 females. A spatial ability score was generated for each student on the basis of responses to the four spatial ability items and used to classify males and females into high and low spatial ability groups. High and low spatial ability males differed significantly by *t* test in their participation, enjoyment and total scores. High and low spatial ability females differed significantly in participation and total scores. The pattern of activities which was most significant in discriminating between the high and low spatial groups was substantially different for males and females.

SAMPLE ITEMS

For each activity, you are asked to indicate (1) the extent of your participation in the activity, and (2) the extent of your enjoyment of the activity. Indicate your answers using the following code:

(1) Extent of participation	(2) Extent of enjoyment
a. very often	a. very much
b. often	b. much
c. occasionally	c. little
d. never	d. none

01. Playing checkers

14. Making pottery

20. Weaving or macrame

24. Playing golf

AVAILABILITY

The instrument is available from the authors. There is no cost to other researchers. The authors would like copies of studies using the instrument.

REFERENCES

Guay, R., & McDaniel, E. *Correlates of performance on spatial aptitude measures*. Final report. Grant No. DAHC 19-77-G-0019, U.S. Army Research Institute for the Behavioral Sciences. Lafayette, Indiana: Purdue Research Foundation, 1978.

McDaniel, E., Guay, R., Ball, L., & Kalloff. *A spatial experience questionnaire and some preliminary findings*. Paper presented at the annual meeting of the American Psychological Association, Toronto, 1978.

STS YOUTH INVENTORY, FORM G

AUTHORS

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Benjamin Shimberg
Scholastic Testing Service
480 Meyer Road
Bensenville, Illinois 60106

DATE DEVELOPED

1968, 1971

INSTRUMENT TYPE

Attitude scale

MEASUREMENT VARIABLES

Attitudes toward school, self, interpersonal relationships, emotional security, and vocations.

TARGET POPULATION

The instrument is designed for use with students in grades 7 through 12. The Spanish edition may be used with bilingual or Spanish dominant students.

INSTRUMENT FORMAT

This is a checklist containing 167 Likert-formatted items measuring five areas of concern: My School, After High School, About Myself, Getting Along with Others, Things in General. Subjects respond by checking one of the three boxes or a circle, the large box indicating that the item represents a large problem for the subject; the middle box, a middle-sized problem; the small box, an occasional or small problem; the circle, no problem. Responses can be marked directly in the booklet or on separate answer sheets. The Inventory is available in English and in Spanish.

SCORING

Complete instructions for scoring the instrument and interpreting the results are provided in the General Manual. A scoring service is available for school surveys, with STS reporting the number and percent of students marking each response to each item.

DESCRIPTION

Development. The Youth Inventory was developed on the premise that the items should represent the problems and concerns of young people as seen by themselves, rather than as seen by adults. Form A (1949) was developed by classifying problems expressed by high school students in anonymous essays into eight categories and designing item content to represent these categories. Form S (1958) was developed using a similar methodology. Form G (1971), the current form, was constructed from the item pool of Form S, with revisions and eliminations of specific items determined by three criteria: usefulness of the items to counselors, acceptability to parents and school personnel, frequency of response to them as major problems. Form G has been administered to a national sample of 4,000 high school students. A stratified random sample of 2,400 cases, with stratification along the variables of region, rural or urban residence, and sex, has been drawn from the larger population in order to obtain normative data, as well as to study the statistical properties of the instrument. In its current form, the instrument is comprised of the five subscales mentioned previously. These assess four orthogonal factors or underlying areas of concern identified through factor analysis of the data provided by the stratified random sample: interpersonal relationships-social conscience, emotional security, vocation, college.

Reliability. Split-half reliability coefficients, calculated for each of the five problem areas into which the inventory is divided, range from .86 to .96 with a median value of .93.

Validity. Content validity of the instrument is based on the original source of the items as described above. Intercorrelations of scores on the five subscales, ranging from .47 to .74, also provide a measure of construct validity based on the internal structure of the instrument.

Norms. Tables of percentile rank norms by grade, by sex, and by grade by sex, are presented in the General Manual accompanying the instrument. The norms are based on the responses of the stratified random sample of 2,400 cases (1,200 boys and 1,200 girls) drawn from the approximately 4,000 students in 12 states who were administered Form G of the inventory in 1968. Separate norms for the Spanish version are not provided.

SAMPLE ITEMS

(English Booklet)

12. I don't see much point in my courses.

45. I wish I could afford to go to college.

95. I am afraid to speak up in class.

(Spanish Booklet)

59. ¿Que clase de preparación se necesita para distintos trabajos?

102. Me enfermo demasiado.

103. ¿Es el dinero lo más importante de la vida?

AVAILABILITY

The checklist booklets (available in English or Spanish in packages of 35), answer sheets, student profiles, and the General Manual may be purchased from Scholastic Testing Service, Inc. The instrument is copyrighted. The authors would like copies of studies using the instrument.

REFERENCES

Bauernfeind, R. H. Measuring children's strength of response to attitude items. Educational and Psychological Measurement, XV(1), 1955, 63-70.

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Shimberg, B. The development of a needs and problems inventory for high school youth. Studies in Higher Education, LXXII. (Further Studies in Attitudes, Series XVII.) Division of Educational Reference, Purdue University, 1949.

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Weisbrodt, J. A. The effects of response set on the SRA Youth Inventory. Unpublished master's thesis, Purdue University, 1959.

CROSS REFERENCES

Bauernfeind, R. H. Building a school testing program (1978 edition). Bensenville, Illinois: Scholastic Testing Service, 1978, pp. 190-193.

STUDENT ATTITUDES TOWARD WOMEN'S STUDIES QUESTIONNAIRE

AUTHORS

Sharon A. Shueman
William E. Sedlacek
Counseling Center
University of Maryland
College Park, Maryland 20742

DATE DEVELOPED

1976

INSTRUMENT TYPE

Opinion inventory

MEASUREMENT VARIABLE

Attitude toward Women's Studies as an academic discipline

TARGET POPULATION

The instrument was designed for use with college students of both sexes.

INSTRUMENT FORMAT

This is a Likert-type scale consisting of 27 statements. Some items measure student attitude toward Women's Studies, while others ask for factual information about the student's past experience with and their future plans for participation in Women's Studies courses.

ADMINISTRATION

The instrument is designed for group administration. Administration directions are not provided. Respondents are to indicate agreement or disagreement with each item on a scale from 1 to 5. For other items, respondents write out short answers. Approximate administration time is 10 minutes.

SCORING

Scoring instructions are not provided. The author indicates that responses on each item are tabulated in order to make comparisons between groups.

DESCRIPTION

Development. The questionnaire was developed to measure student attitudes toward the Women's Studies Program at the University of Maryland. It was administered to a random sample of 310 female and 283 male incoming freshmen. Responses to each item were analyzed by analysis of variance, Scheffe *post hoc t* tests and chi square. All items but one showed significant male-female differences in response, with women consistently expressing a more favorable attitude toward Women's Studies. Findings on this initial study provide some evidence of the instrument's predictive validity.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly disagree

3. My high school offered at least one course in Women's Studies.

10. A major in Women's Studies would not be good preparation for a job.

15. Interest in Women's Studies will most probably be short-lived.

22. It would be easy to get good grades in a Women's Studies course.

24. Women's Studies courses are necessary to eliminate male bias in the established curriculum at the University.

AVAILABILITY

The instrument is available from the Testing, Research, and Data Processing Unit, Counseling Center, University of Maryland, College Park, at duplicating cost plus postage.

REFERENCES

Bravy, S. S., & Sedlacek, W. E. *University student attitudes toward Women's Studies*. Research Report No. 4-76. College Park: University of Maryland, Counseling Center, 1976. (ED 134 116)

TITLE IX/WOMEN AND CAREERS INVENTORY

AUTHORS

Twila C. Liggett
Patricia Romero
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Nebraska Commission on the Status of Women
P.O. Box 94985
Lincoln, Nebraska 68509

DATE DEVELOPED

1977

INSTRUMENT TYPE

Cognitive test

MEASUREMENT VARIABLES

Knowledge of Title IX and knowledge of women's role in the work force

TARGET POPULATION

The instrument was designed for use with counselors, teachers, and administrators in a rural setting (defined by the authors as communities with a population base of 50,000 or less).

INSTRUMENT FORMAT

The Inventory consists of 18 multiple choice items and 7 true-false items.

ADMINISTRATION

The Inventory is group administered. Directions are printed on the instrument. The approximate time for completion is 20 minutes.

SCORING

The instrument is designed to be hand scored. An individual score is the number correct. A scoring key is available.

DESCRIPTION

Development. The Inventory was developed as part of a field test battery for the Counselor's Expanding Career Options (CECO) project, a career guidance program aimed at introducing a non-sexist, non-traditional career approach. A pool of 72 items was developed through rational process, and this original version was administered to 18 professional staff members from the Nebraska State Department of Education. The test was subsequently shortened and administered to a sample of university students. An item analysis was done, and the results from the two field tests were compared. Twenty-five items were selected for the final version of the Inventory.

Reliability. Cronbach alpha coefficients for four samples of field test participants are reported as: .22 (n=34), .64 (n=38), and .57 (n=36).

Validity. Content validity was established during a conference held at AIR in the fall of 1978 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

SAMPLE ITEMS

1. Statistics indicate that what proportion of women will work outside the home at some time in their lives?

   A. 3 out of 10
   B. 5 out of 10
   C. 7 out of 10
   D. 9 out of 10

13. Although the reasons why women work are varied, the most common reason is:

    A. Spending money
    B. Self-satisfaction
    C. Boredom
    D. Economic need

24. Title IX does not prohibit an institution which receives federal funds from entering into union or employment agency agreements which subject individuals to discrimination on the basis of sex.

    True
    False

AVAILABILITY

A copy of the inventory may be obtained by contacting Twila C. Liggett at the Nebraska Commission on the Status of Women.

REFERENCES

Counselor's Expanding Career Options Project. Pre-test Data Analysis Report. Nebraska Commission on the Status of Women, 1978.

WORK ATMOSPHERE QUESTIONNAIRE (FORM WAQ-1c)

AUTHORS

James K. Hoffmeister
Donald R. Miller
Test Analysis and Development Corp. (TADC)
2400 Park Lake Drive
Boulder, Colorado 80301

DATE DEVELOPED

1976

INSTRUMENT TYPE

Opinion inventory

MEASUREMENT VARIABLE

Work atmosphere

TARGET POPULATION

The instrument is designed for use by employees of both sexes.

INSTRUMENT FORMAT

The Work Atmosphere Questionnaire (WAQ) consists of 38 Likert-type items grouped under three headings--My Supervisor, My Co-workers, and In My Work Situation. Respondents rate the items on a 5-point scale from 'Not At All' or 'Never' to 'Always'. The questionnaire is printed on a form that can be read by an optical scanning machine.

ADMINISTRATION

The measure is self-administered and may be given to groups or individuals. Administration directions are given with the questionnaire and in the manual. Administration time is approximately 10 minutes.

SCORING

A special computerized scoring process called Convergence Analysis should be used to score the WAQ. This process is designed to scan responses to determine whether they meet a minimum validity requirement of response consistency. A score is computed only if the person has responded in a reasonably consistent fashion to the items used to measure that factor. The WAQ is scored by TADC; computer programs for scoring are available. Additional scoring information is given in the manual.

DESCRIPTION

Development. Items were written to provide information about several aspects of the work situation. The aspects are Work Planning and Coordination, Work Incentive, Work Environment, Supportiveness, Performance-Productivity, and Positive Interaction Influence. Relevant items were then drafted and submitted to samples of respondents for review. Respondents were told the intent of the measure and were asked to suggest additional items and revisions for the proposed items. Items were subjected to the cluster analytic procedures developed by Robert D. Tryon and Daniel E. Bailey. To be included in the final measure, all items had to have oblique factor coefficients of at least .50.

The Work Atmosphere Questionnaire provides information regarding employee-employer relations and work resources. It was designed to be used both for program evaluation and for individual counseling. The WAQ-1c is one of several measures developed at TADC, whose goal is to help individuals and organizations achieve their own goals in an effective and efficient fashion. Another of TADC's measures, the Self-Esteem Questionnaire, is also in this package.

Reliability. Specific reliability data are not available for this measure. The only information available is that generalized split-half (Cronbach's alpha) reliabilities range from .89 to .94 for several instruments developed by TADC.

Validity Content validity was established during a conference held at AIR in the winter of 1977 by a panel of judges with expertise in measurement and evaluation and women's educational equity and with an appreciation for the special concerns of ethnic minorities and bilingual populations. In the opinion of the judges, the instrument adequately reflects the domain of content it was designed to measure, and the items are appropriate to the age and educational level of the target population for which it is intended.

Additional Information. The WAQ-1c is being used with nurses in studies designed to provide information about the effect of work barriers upon productivity. Data from this study is not yet available.

The manual includes information about the seven other TADC measures (the Health Attitude and Practices Questionnaire, the Conceptual Systems Test, and other atmosphere questionnaires).

SAMPLE ITEMS

1 = Not at all or never
2 = Occasionally
3 = Depends on the situation
4 = Often-usually
5 = Always

My Supervisor:

3. Is well prepared to do a good job.

7. Blames others when things don't go as planned.

My Co-workers:

18. Compliment others when they do a good job.

24. Make others feel unsure about themselves.

In My Work Situation:

30. The quality of work done is regularly assessed.

37. Work environments are safe.

AVAILABILITY

The instrument is copyrighted and may be purchased from:

Test Analysis and Development Corp. (TADC)
2400 Park Lake Drive
Boulder, Colorado 80301

The computer programs for scoring are also available from TADC. The authors would like copies of studies using the instrument.

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REFERENCES

Test Analysis and Development Corporation. General information on tests and services. Boulder, Colorado: Author.

WORK ENVIRONMENT PREFERENCE SCHEDULE (WEPS)

AUTHOR

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State University of New York
Room 230 Education Bldg.
Albany, New York 12222

DATE DEVELOPED

1968, revised 1973

INSTRUMENT TYPE

Personality inventory

MEASUREMENT VARIABLE

Bureaucratic orientation

TARGET POPULATION

The instrument is designed for use with adults and with college and high school students.

INSTRUMENT FORMAT

The Work Environment Preference Schedule (WEPS) consists of 24 Likert-type items, evenly distributed across these four categories: Self-subordination, Impersonalization, Rule Conformity, and Traditionalism. Responses are on a 5-point scale ranging from 'strongly agree' to 'strongly disagree'.

ADMINISTRATION

The WEPS is a self-administering scale which can be given to groups or individuals. There is no time limit, but approximate completion time is 10 to 15 minutes. Complete administration directions are provided in the manual.

SCORING

The WEPS is hand scored. A machine-scorable version is available for large-scale surveys. Scoring directions are given in the manual.

DESCRIPTION

Development. A set of categories describing individual characteristics such as traditionalism and self-subordination was identified, based on the descriptive schema of Max Weber (1946). Items were developed and worded so that agreement indicates acceptance of the bureaucratic norm. Data for item analysis were collected from samples of both sexes and diverse populations including a nationally representative sample of civil service workers, students in trade training programs, college and high school students, and military personnel. Items with the best internal statistics across samples were chosen for the final scale.

According to the manual, the WEPS is designed to measure a personality construct, 'bureaucratic orientation,' which reflects a commitment to the set of attitudes, values, and behaviors that are characteristically fostered and rewarded by bureaucratic organizations. Scores on the WEPS can be expected to relate to industrial turnover and morale. Vocational counselors could use the WEPS scores in guidance, employers could use them for job assignment, and researchers could use them to measure the impact of bureaucracy on personality.

Reliability. Reliability coefficients were .91, .89, .84, and .83, respectively, for samples of Peace Corps volunteers, guidance couselors, business and management students, and U.S. Military Academy seniors. The higher values occurred for the two groups with both sexes.

A small group of high school students took the WEPS before and after a summer work program (three-month interval). The test-retest correlation was .82. ROTC students took the WEPS twice with a 16-month interval, resulting in a correlation of .65.

Validity. The manual presents detailed descriptions and data from studies comparing WEPS scores with those of numerous other personality scales including Gordon's Survey of Interpersonal Values, and Allport, Vernon, and Lindzey's Study of Values. Overall results confirmed expected relationships such as positive correlations with conformity and orderliness and negative correlations with independence, variety, and aptitude and achievement.

If the WEPS study measures the extent to which an individual endorses attitudes and behaviors inherent in the classical bureaucratic model, then it would be expected to correlate positively with an individual's desire to remain in such an environment, the military in particular. Three studies are described, which essentially support this hypothesis. Validity of the WEPS was also demonstrated by the mean score of various groups presumed to vary in terms of degree of bureaucratic orientation. High means were found for persons whose duties were highly defined, while lower means were found for persons who worked under little supervision.

Additional Information. The manual contains extensive data and descriptions of validation efforts including correlations with other measures, cross-cultural studies in Japan and India, studies based on performance ratings and peer ratings, and group comparisons. In addition, normative data are presented for high school and college students, ROTC students, and for a selection of occupations.

Gordon has also developed a School Environment Preference Survey (SEPS) 1978. This instrument yields scores on four subscales and is designed to measure work role socialization in the schools up through grade 12. The SEPS is available from Educational and Industrial Testing (EdITs), P. O. Box 7234, San Diego, California 92107.

SAMPLE ITEMS

1 = Strongly agree
2 = Agree
3 = Undecided
4 = Disagree
5 = Strongly disagree

1. People at higher levels are in the best position to make important decisions for people below them.

5. A person's first loyalty within the organization should be to his superior.

14. Within the organization, it is better to maintain formal relationships with other people.

21. A person should do things in the exact manner that he thinks his superior wishes them to be done.

AVAILABILITY

The WEPS and accompanying manual are copyrighted and may be purchased from:

The Psychological Corporation
757 Third Avenue
New York, New York 10017

The manual contains a complete bibliography of articles and materials related to the WEPS.

REFERENCES

Gordon, L. V. The measurement of bureaucratic orientation. Personnel Psychology, 1970, 23, 1-11.

Other Instruments

Gordon, L. V. Are there two extremeness response sets? *Educational and Psychological Measurement*, 1971, *31*, 867-873. (a)

Gordon, L. V. Weber in the classroom. *Journal of Educational Psychology*, 1971, *62*, 60-66. (b)

Gordon, L. V. The therapeutic personality in the therapeutic community. *Journal of Applied Psychology*, 1973, *57*.

Gordon, L. V. *Manual: Work Environment Preference Schedule*. New York: The Psychological Corporation, 1973.

Gordon, L. V., & Khalique, N. Bureaucratic values and Indian teacher morale. *Behaviorometric*, 1972, *II*, 58-60.

Gordon, L., V., & Kikuchi, A. The measurement of bureaucratic orientation in Japan. *International Review of Applied Psychology*, 1970, *19*, 133-140. (a)

Gordon, L. V., & Kikuchi, A. Response sets of Japanese and American students. *Journal of Social Psychology*, 1970, *82*, 143-148. (b)

Gordon, L. V., & Kikuchi, A. *Social psychology of values: Cross-cultural studies*. Tokyo: Kawashima-Shoten, 1973.

WORK ENVIRONMENT SCALE (WES)

AUTHORS

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DATE DEVELOPED

1974

INSTRUMENT TYPE

Opinion inventory

MEASUREMENT VARIABLE

Work environment

TARGET POPULATION

The instrument is designed for adults of both sexes.

INSTRUMENT FORMAT

The Work Environment Scale (WES) consists of true/false items which measure the following dimensions: Relationship Dimensions (Involvement, Peer Cohesion, Staff Support); Personal Growth Dimensions (Autonomy, Task Orientation); and System Maintenance and System Change Dimensions (Work Pressure, Clarity, Control, Innovation, Physical Comfort). Form R contains 90 items. Test items are printed in a reusable booklet with a separate answer sheet.

ADMINISTRATION

The WES is designed for group administration. Directions are printed on the form, and details on test administration are provided in the accompanying manual. Approximate administration time is 15 to 20 minutes.

SCORING

The instrument is designed to be hand scored, yielding scores on the 10 subscales. Answer sheets and scoring stencils are provided, and scoring directions are given in the manual.

DESCRIPTION

Development. The WES is one of nine Social Climate Scales developed in the Social Ecology Laboratory at Stanford University.[1] The same three dimensions (Relationships, Personal Development, and System Maintenance) are common to all nine scales.

The original 200-item form (A) of the WES was developed through a variety of methods. Individuals were interviewed with regard to the characteristics of their work groups. Some items were adapted from other previously developed Social Climate Scales. The choice and wording of items was based on a formulation of environment conceptualized by A. Murray, 1938. Each item had to identify characteristics of an environment which would "press" toward one of the dimensions, e.g., toward Peer Cohesion or toward Control.

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[1] The other Scales are: Ward Atmosphere Scale, Community-Oriented Programs Environment Scale, Correctional Institutions Environment Scale, Military Company Environment Inventory, University Residence Environment Scale, Classroom Environment Scale, Group Environment Scale, and Family Environment Scale.

Form A was administered to 75 persons in a sample of five work groups, and after analysis of the data from this group, several items were dropped or revised, resulting in the 138-item Form B. Form B was administered to 624 individuals in 44 diverse work groups, and data from this sample were used to develop the 90-item Form R. The following criteria were applied in item selection: (1) the overall item split should be as close to 50-50 as possible; (2) the items should correlate more highly with their own than with the other subscales; (3) each subscale should have an approximately equal number of items scored True and False; (4) the final subscales should show only low to moderate intercorrelations; (5) each item and each subscale should discriminate among groups.

A Short Form (S) of the WES was subsequently developed, using only four items from each subscale, for a total of 40 items. (The first 40 items on Form R constitute Form S.) Intraclass profile correlations were calculated between profiles from Forms R and S for 34 of the work groups in the normative sample. Twenty-four of the groups' correlations were above .90, and of the remaining 10 groups' correlations, only two were below .75. Two additional forms of the WES have been developed, the Ideal Work Unit Form (I) and the Expectations Form (E). As the titles imply, Form I rephrases the items to ask what kind of work environment the subject considers to be ideal, and Form E rewords the items to ask how subjects expect a future work environment to be. The authors suggest using either or both of these forms in conjunction with Form R to compare the employees' real, expected, and ideal work conditions. Both Forms I and E contain 90 items and are parallel to Form R.

Reliability. Internal consistency reliability of the subscales ranges from .70 to .91, using the Kuder-Richardson Formula 20, based on the normative sample (n = 624).

Validity. That the scale gives information on nine distinct dimensions of work environment is evidenced by the low average intercorrelations (r = .25) between the subscales. Item to subscale correlations range from .48 to .63. Although empirical issues such as the relationship of the WES subscales to personality and background variables of individuals, the reliability and stability of the profiles, and the validity of the subscales have not been investigated specifically for the WES, these issues have been examined in relation to several of the other Social Climate Scales upon which the WES is modeled (Moos, 1974b and 1975).

Norms. Standard score conversion tables for Forms R and S are provided in the manual, as are mean scores and standard deviations for the nine subscales for the normative sample of the 44 work groups. The authors are planning to present separate norms for different types of work groups when more data become available. The authors state that the published norms are preliminary in nature and should be used with caution. The authors would welcome receiving scale score distributions, means and standard deviations and other statistical data and reports of studies in which the WES is used.

Additional Information. In a study of the relationship between the posttreatment functioning of alcoholic parents and their marital and occupational environments (Bromet & Moos, 1977), it was found that the more positive the patients' perceptions of the work environment in terms of levels of involvement, peer cohesion, staff support, autonomy, work pressure, clarity, and physical comfort as measured by the WES, the better the posttreatment performance. These findings were true for the unmarried alcoholics studied. Among marrieds no relationship was formed.

SAMPLE ITEMS

If you think the statement is TRUE or mostly TRUE of your work environment, mark an X in the box labeled T (true).

If you think the statement is FALSE of your work environment, mark an X in the box labeled F (false).

1. People take a personal interest in each other.

34. People can use their own initiative to do things.

78. Employees are expected to conform rather strictly to the rules and customs.

AVAILABILITY

The WES Form R and accompanying manual are copyrighted and may be purchased from:

Consulting Psychologists Press, Inc.
577 College Avenue
Palo Alto, California 94306

Forms I and E are available on request from the publisher. The first author would like copies of studies using the instrument.

REFERENCES

Bromet, E., & Moos, R. Environmental resources and the posttreatment functioning of alcoholic patients. Journal of Health & Social Behavior, September 1977, 18(3), 326-338.

Insel, P., & Moos, R. Psychological environments: Expanding the scope of human ecology. American Psychologist, March 1974, 179-188.

Moos, R. The Social Climate Scales: An overview. Consulting Psychologists Press, Palo Alto, California, 1974. (a)

Other Instruments

Moos, R. *Evaluating treatment environments: A social ecological approach*. Wiley and Sons, New York, 1974. (b)

Moos, R. *Evaluating correctional and community settings*. Wiley and Sons, New York, 1975.

WORK FORCE QUIZ

AUTHOR

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Cornell University
Ithaca, New York 14853

DATE DEVELOPED

1977

INSTRUMENT TYPE

Cognitive test

MEASUREMENT VARIABLE

Knowledge about women in the U.S. work force

TARGET POPULATION

The instrument is designed for use with students of high school age.

INSTRUMENT FORMAT

The test consists of 18 statements in true/false format.

ADMINISTRATION

The instrument is designed for group administration. Approximate completion time is five minutes. Suggestions for using the instrument are provided.

SCORING

An individual score is the number of items correct. A scoring key is provided.

DESCRIPTION

Development. The instrument is one of several included in a sourcebook developed under the auspices of the Office of Occupational and Continuing Education, New York State Education Department, as a self-study guide intended for vocational educators. Items are based upon two U.S. Department of Labor Fact Sheets, "Twenty Facts on Women Workers" and "The Myth and the Reality." Items for this and other instruments in the sourcebook were prepared by vocational educators and were reviewed by several faculty members of the New York State College of Human Ecology. It is suggested that the quiz be administered as a pretest, as an exercise, and as a final evaluation for a unit on the labor force.

Validity. The instrument's face validity may be inferred from its method of construction.

SAMPLE ITEMS

True False

2. A majority of women work because of economic need.

12. Women have a much higher turnover rate in labor than men.

17. The number of working mothers who have children under 18 has not increased since 1940.

AVAILABILITY

The instrument is available in Expanding adolescent role expectations (see references), which may be purchased from:

Media Services
College of Human Ecology
Cornell University
Ithaca, New York 14853

REFERENCES

Community Service Education Department, New York State College of Human Ecology. Expanding adolescent role expectations. Information, activities, resources for vocational educators. Ithaca, New York: Cornell University, 1977. (ED 147 544)

WORK VALUES INVENTORY (WVI)

AUTHOR

Donald E. Super
Teachers College
Columbia University
New York, New York 10027

DATE DEVELOPED

1968

INSTRUMENT TYPE

Personality inventory

MEASUREMENT VARIABLE

Work values

TARGET POPULATION

The instrument is designed for use with junior high school students through adults.

INSTRUMENT FORMAT

The Work Values Inventory (WVI) consists of 45 Likert-type items, to be rated on a 5-point scale from 'Very Important' to 'Unimportant'. Each of 15 subscales has three items. These subscales include the following: creativity, management, achievement, prestige, independence, surroundings, supervisory relations, way of life, variety, economic return, security, associates, esthetics, altruism, and intellectual stimulation.

ADMINISTRATION

The WVI can be administered to groups or individuals, and can usually be completed in 10 to 15 minutes. The manual contains very specific administration instructions including the suggestion that the administrator establish an atmosphere of answering items frankly and sincerely.

SCORING

The WVI booklets are designed primarily for machine scoring, but they may also be scored by hand. A complete scoring key and instructions are contained in the manual.

DESCRIPTION

Development. The author conducted standardization studies in the spring of 1968 on a national sample of 10,083 students (half boys, half girls) in grades 7-12, representing 26 school districts in 20 states.

A variety of forms were tried out since 1951. The items were selected from a pool containing both old and new items. The selection criteria included good correlation of new items with original items--correlation ranged from .43 to greater than .80, with a median of .65; correlations greater than .70 occurred in one-third of the cases.

The Work Values Inventory (WVI) is designed to measure the values of work, both intrinsic and extrinsic--in other words, the satisfactions that people seek in work, and the satisfactions that may be outcomes of work. The inventory produces a profile of self-reported value patterns of the respondent and provides insight into the subject's value heirarchy by allowing comparison with other respondents or with persons in a variety of jobs.

It may be used for age levels ranging from junior high school through adult in academic or vocational guidance settings, for screening applicants to business and professional schools, and for selection and placement in business or industry.

Reliability. Some 99 tenth grade students in a suburban Albany, New York, school were tested and retested after two weeks. Reliabilities ranged from .74 to .88 with a median r = .83.

Validity. Empirical evidence for content validity is reflected in the manual in terms of results of a factor analysis and the relative independence of the subscales. In addition, items were phrased in accordance with a study of the literature on values, and items were revised in light of interviews, essays, and card sorts on the meaning of the terms and constructs.

The constructs of the WVI are based partly on Spranger's theory of values and the Allport-Vernon-Lindzey Study of Values, which is itself based on Spranger's theory, and partly on job satisfaction research as reported in the literature. The manual shows evidence of validity through correlations of WVI scales with the AVL Study of Values, as well as with the Strong Vocational Interest Blank and the Kuder Preference Record. The WVI scales have been correlated with other measures and criterion variables. On its relationship to personality measures, the manual indicates that work values, like more measurable variables, are not appreciably related to personality traits. WVI relationships to curricular differences for grades 7-12 are not great enough to be of practical value in counseling or selection, although they may prove significant for higher education levels and various types of technical and business institutes. Its relationships to grade and sex are similarly insignificant. Earlier forms showed expected differences between occupational groups with, however, considerable overlapping. The author explains this in his chapter in

Zytowski, as cited in the references. No occupational norms are supplied.

Additional Information. The following information is also available: intercorrelations of scales; sex differences in work values, grades 7 and 12; and data, presented by sex, on six factors identified by researchers in 1961 (security-economic-material; social-artistic; work conditions and associates; heuristic-creative; achievement-prestige; and independence-variety).

SAMPLE ITEMS

5 means "Very Important"
4 means "Important"
3 means "Moderately Important"
2 means "Of Little Importance"
1 means "Unimportant"

Work in which you...

2... Help others.

5... Have freedom in your own area.

10... Can be the kind of person you would like to be.

34... Have good contacts with fellow workers.

43... Have a superior who is considerate.

AVAILABILITY

The WVI is copyrighted and may be ordered from one of the following Houghton-Mifflin Regional Sales offices:

666 Miami Circle, N.E.
Atlanta, Georgia 30324

6626 Oakbrook Blvd.
Dallas, Texas 73235

1900 So. Batavia Ave.
Geneva, Illinois 60134

Pennington-Hopewell Rd.
Hopewell, New Jersey 08525

777 California Ave.
Palo Alto, California 94304

REFERENCES

Super, D. E. Work Values Inventory manual. Boston: Houghton-Mifflin, 1970.

Super, D. E. The Work Values Inventory. In D. G. Zytowski (Ed.), Contemporary approaches to interest measurement. Minneapolis: University of Minnesota Press, 1977.

YOUTH GROUP SURVEY

AUTHOR

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Cornell University
Ithaca, New York 14853

DATE DEVELOPED

1978

INSTRUMENT TYPE

Cognitive test and attitude scale

MEASUREMENT VARIABLES

Knowledge and attitudes about changing work force, family, and sex stereotyped activities

TARGET POPULATION

The instrument is designed for use with students of high school age. It was used initially with students in 4-H Clubs and vocational education youth groups.

INSTRUMENT FORMAT

The instrument consists of 10 knowledge statements in a true/false format and 12 attitudinal statements in Likert format.

ADMINISTRATION

The instrument is designed for mail survey. Directions appear on the instrument. Approximate completion time is 10 minutes

SCORING

An individual score is the number of true/false items correct and total of weighted attitudinal responses. A scoring key is provided along with a summary of results from a statewide survey. A high score indicates a more liberal or expanded viewpoint.

DESCRIPTION

Development. The instrument was developed to sample the knowledge and attitudes of youth concerning changing family, work force, and sex stereotyped activities as part of a project conducted under the auspices of the Office of Occupational and Continuing Education, New York State Education Department.

Reliability. For the knowledge test, test-retest reliability over a 10-day interval was .55 (Pearson product moment correlation) with a sample of 31 vocational-occupational students. For the attitude test, the Spearman-Brown formula reliability was .62, using the same sample.

Validity. Some evidence of the instrument's predictive validity is provided by the results of the study for which it was designed, in which 356 male and 862 female students responded to the Survey. These students, who were in grades 6 through 12, were members of the following youth organizations: 4-H Club, Future Homemakers of America, Future Farmers of America, Future Business Leaders of America, and the Vocational Industrial Clubs of America. Females showed a significantly ($p < .001$) higher score on the knowledge test than did males. On the attitude test, females had significantly higher average scores for the majority of the items. Eighty percent of the females and 44% of the males had total attitude scores which would place them in the range of agreeing with the concept of equality of the sexes.

SAMPLE ITEMS

Knowledge: (True or False)

1. Three out of four teenage marriages end in divorce.

6. Most men who have worked for a woman supervisor do not complain about working for a woman.

7. Most women who leave work to have children never return to their jobs.

Attitude: (Agree Strongly, Agree Mildly, Disagree Mildly, Disagree Strongly)

8. A man should expect to help with the housework.

10. Girls are more likely to get hurt in a shop class than are boys.

11. It is important that male students as well as female students learn homemaking and child care skills.

AVAILABILITY

The instrument, information on reliability, and a summary of findings for a statewide survey are available from the first author at duplicating cost plus postage. The authors would like copies of studies using the instrument.

REFERENCES

Farris, C. J. Community Service Education, New York State College of Human Ecology. Vocational and 4-H Youth Group Members Knowledge and Attitudes Concerning Expanding Roles, 1978.

PART III

BIBLIOGRAPHY OF ADDITIONAL INSTRUMENTS

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MATHEMATICS ATTITUDE SCALE (Revised)

Aiken, L., Jr. Personality correlates of attitude toward mathematics. The Journal of Educational Research, 1963, 56(9), 476-480.

The instrument was originally developed in 1961 to study the relationship between mathematics attitude and (1) achievement measures, (2) personality variables, and (3) past experiences with mathematics. The scale was revised in 1963 in a further investigation of mathematics attitude and general personality traits. It was designed for college students, but versions of the scale have been used with students from grade 6 through graduate school. The revised scale is a 20-item Likert scale. References explaining more about the uses and development of the instrument may be found in Aiken, L., Jr. Attitudes toward mathematics. Review of Educational Research, 1970, 40, 551-96.

AWARENESS OF STEREOTYPING: MODULES AND TESTS FOR ELEMENTARY TEACHERS

Picó de Hernandez, I. Sexism in the classroom: Project for the development of awareness stereotyping modules for elementary school teachers. Final Report to the Women's Educational Equity Act Program. The Commission for the Improvement of Women's Rights. Santurce, Puerto Rico: October, 1977.

These eight modules were developed to raise awareness of racial and sex-role stereotyping in Puerto Rican elementary school teachers. The modules and accompanying teachers' activities guide are in Spanish. Each illustrated module consists of an introductory chapter, a list of behavioral objectives of the module, a self-scored pretest, practice exercises, and a posttest with an answer key. The modules, which are to be used in mumerical order, are titled: (1) Ideas, Creencias, Actitudes (Ideas, Beliefs, Attitudes); (2) Viva La Diferencia (Long Live the Difference); (3)¿Por Qué Mami no Puede Cambiar Una Goma? (Why Can't Mommy Change a Tire?); (4)¿Por Qué Rosa No Es Valiente? (Why Isn't Rosa Brave?); (5) Una Escoba para Ana, Cien Oficios Para Juan (A Broom for Ana, 100 Jobs for Juan); (6) Doña Ana No Está Aquí (Doña Ana Isn't Here); (7) Los Rizos y el Beisbol (Curls and Baseball); (8) ¡Auxilio! ¡Socorro! ¡Salvame! (Help! Help! Save Me!). The teacher's guide, ¿Que Hacer?, presents a guide to activities for children in grades 1 through 3. The modules were evaluated during their development by 10 elementary school teachers in San Juan, Puerto Rico.

CLASSROOM OBSERVATION QUESTIONNAIRE

Picó de Hernandez, I. Sexism in the classroom: Project for the development of awareness stereotyping modules for elementary school teachers. Final Report to the Women's Educational Equity Act Program. The Commission for the Improvement of Women's Rights. Santurce, Puerto Rico: October, 1977.

The Classroom Observation Questionnaire was developed and used in Puerto Rico by a project designed to raise elementary school teachers' awareness of sex stereotyping in the classroom. The instrument is in Spanish. It is designed to aid observers in determining whether the physical arrangements, the visual objects carrying instructional messages, and the teacher-pupil interaction in the classroom result in sex role stereotyping. The observer records numbers of students by sex, sex distribution in seating arrangements, classroom decoration, teacher verbal and nonverbal behavior, and differences in interactions between teachers and male and female students.

CULTURAL PATTERNS IN THE CLASSROOM (PATRONES CULTURALES EN EL SALON DE CLASES)

Picó de Hernandez, I. Sexism in the classroom: Project for the development of awareness stereotyping modules for elementary school teachers. Final Report to the Women's Educational Equity Act Program. The Commission for the Improvement of Women's Rights. Santurce, Puerto Rico: October 1977.

The Cultural Patterns Scale was developed as an assessment instrument to validate the effectiveness of a set of sex role stereotyping awareness modules developed by the Puerto Rican Commission for the Improvement of Women's Rights. The instrument consists of 18 questions regarding elementary school teachers' expectations of male and female behavior in the classroom. The scale was based on a review of the literature available for the United States, although the instrument was developed in Spanish for use in Puerto Rico. Test-retest reliability with 13 subjects over 30 days is reported as .94.

SCHOOL OBJECT SEX-TYPING INDEX FOR PRESCHOOLERS (SOSTIP)

Mueller, E., & Cooper, B. The effect of preschool teacher's sex on children's cognitive growth and sexual identity. Final Report, Project No. 1-A-039, USOE Grant No. OEG-1-71-0019 (509). (ED 101 833)

This attitude index was developed to determine whether preschool children perceive school-related objects as sex-typed and to examine the effects of the teacher's sex on the sex-typing of such objects. The method is to show the child a set of photographs of work places, objects, and non-sex identified people engaged in activities and to ask whether a boy, a girl, or both would be identified with the picture.

Results of a study of 59 four-year-old children indicate that the SOSTIP detects significant differences between sexes and detects change over time and that both boys and girls have learned sex-role stereotypes by age four.

SEX ROLE CONCEPTS OF ELEMENTARY SCHOOL CHILDREN & ADULTS

Hartley, R. E., & Klein, A. Sex-role concepts among elementary-school age girls. Journal of Marriage and Family Living. February 1959, 21, 59-64.

Sex Role Concepts of Elementary-School Children and Adults (title supplied by abstractor) is a 133-item instrument. It was developed for a study of the extent of elementary school children's and adults' sex-typing of behaviors. Respondents are presented items describing various adult behaviors and asked to sort these into activities characteristic of males, females, or not sex-linked. They can also be asked to sort the activities on the basis of what they would choose to do themselves as adults, and which activities they think women (or men) enjoy.

TEACHER AWARENESS OF SEXISM AND RACISM QUESTIONNAIRE

Schniedewind, N. Integrating personal and social change in teacher training: A project report. New Paltz, New York: State University of New York, 1975. (ED 150 095)

The Teacher Awareness Questionnaire (TAQ) is a two-part scale. Part one is a Likert-type scale concerning personal power and group support. Part two contains four essay questions on various aspects of racism and sexism. The TAQ was developed as the pre- and posttest evaluation tool for a 50-hour teacher training course entitled "Classroom Strategies for Dealing with Racism and Sexism." The instrument was used with preschool through high school students and with teachers.

VANCE-RICHARDS VERBAL FLUENCY TEST AND FREIDEN POWER QUESTIONNAIRE

Weber, M., Freiden, M., & McKinnon, E. The relationship between teachers' sex role attitudes and stereotypic reinforcement of student behaviors. Paper presented at the annual meeting of the American Educational Research Association, Toronto, 1978. (ED 151 333)

The two instruments are designed to be used as a pair with female preservice and inservice teachers at the elementary and secondary levels. The instruments were developed in 1977 to study the relationship between teachers' sex stereotypic attitudes and their behavior in the classroom. Each instrument contains 49 incomplete sentences to be completed by respondents.

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CHILDREN'S SEX STEREOTYPING OF OCCUPATIONS

Schlossberg, N.K., & Goodman, J. A woman's place: Children's sex stereotyping of occupations. Vocational Guidance Quarterly, June 1972, 20, 266-70.

Children's Sex Stereotyping of Occupations (title supplied by abstractor) was developed for use in a study of the degree to which elementary school children hold sex role stereotypes about occupations. Children are asked to respond to 12 drawings which represent traditionally masculine or feminine work settings by answering the questions "Could a man work here?" and "Could a woman work here?"

INTERAMERICAN INVENTORY OF INTERESTS (INVENTARIO DE INTERESES)

Manuel, H. T. Guidance Testing Associates, St. Mary's University, One Camino Santa Maria, San Antonio, Texas 78284.

The Inventory of Interests is a career interest inventory available in both Spanish (Form 50101) and English (Form 50201). The subject indicates a degree of interest on a three-point scale for each of 136 occupations and 56 study areas listed. The occupations listed are based on the Department of Labor Dictionary of Occupational Titles, 1965 edition. Subjects construct an individual profile of interests based on their responses. The instrument is designed for secondary students, college students, and other adults. The instrument is copyrighted.

OCCU-SORT

Jones, L.K. 317 Meredith Street, Raleigh, North Carolina 27606.

The Occu-Sort (OS) is composed of a set of 60 cards. On each card is printed a job title and some information on that job. Subjects are asked to sort the cards into jobs they 'might choose,' are 'uncertain' about, or 'would not choose,' and then to re-sort the cards in several different ways. There are three forms of the Occu-Sort, for different levels of educational development. The purpose of the OS is to stimulate people to examine their self-perceptions and what they consider important in an occupation, and to better organize their thoughts about choosing an occupation. The OS was designed explicitly to avoid contributing to socialized sex role stereotyping with regard to occupations.

REVISED NORTH-HATT SCALE

Gist, N. P., & Bennett, W. S. Aspirations of Negro and white students. Social Forces, October 1963, 42, 40-48.

The North-Hatt Scale as revised by Leonard Reissman is an occupational prestige scale used in a study to determine occupational and educational aspirations of 873 Black and white urban high school students. In this study the instrument apparently detected particular high mobility aspirations among Black females. The North-Hatt Scale was also used in a study to determine the relationship between farm residence and levels of occupational aspiration.

TEACHERS' ATTITUDES TOWARD MALE AND FEMALE STUDENTS

Gaite, A. J. Teachers' perceptions of ideal male and female students: Male chauvenism in the schools. Paper presented at the annual meeting of the American Educational Research Association, 1977.

Teachers' Attitudes Toward Male and Female Students (title supplied by abstractor) was used in a project to assess the likely effects that high school teachers have in influencing students' attitudes toward achievement and lifestyle. The first part of the instrument consists of written profiles of ideal senior students--female and male--who have qualities typically considered desirable in our society. Idealized student profiles were presented to high school teachers for their prediction of possible careers and lifestyles for each student. The second part of the instrument asked teachers to predict specific details of students' lives when they were 21 years old and 31 years old.

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IDAHO SEX EQUITY SURVEY INSTRUMENTS

Kaufman, J., Oaks, M., & Rauch, C. A report of a study of sex bias perceptions in Idaho vocational programs, Final Report. Moscow, Idaho: University of Idaho, September 12, 1978.

These survey instruments were developed by members of a Sex Equity Research Committee to serve as the data collection instruments for a study designed to determine the degree of sex discrimination resulting from sex bias within vocational programs in the State of Idaho. The questionnaires were reviewed by members of the Idaho State Division of Vocational Education, particularly from the research staff and from the Sex Equity Coordinator's office. Experts in the semantic differential technique were also consulted. Drafts of the survey instruments were pilot tested with teacher educators and vocational teachers who were students at the University of Idaho. There are two separate instruments for vocational teachers and for administrators and counselors, slightly different in format, but both containing: (1) items tapping information on male/female student enrollment and teacher employment; (2) a 33-item semantic differential scale; (3) demographic information items; (4) a comments section. The Final Report cited above presents results of the study in which 339 Idaho vocational educators, counselors and administrators participated.

MANAGEMENT AND LEADERSHIP CHARACTERISTICS AND SKILLS

DESCRIPTIVE INDEX

Schein, V. E. Relationships between sex role stereotypes and requisite management characteristics among female managers. *Journal of Applied Psychology*, June 1975, *60*(3), 340-44.

There are three forms of the Descriptive Index, each containing the same 92 descriptive terms. Subjects are asked to rate on a 5-point scale how characteristic each trait is of women in general (Women), of men in general (Men), and of successful middle managers (Managers). The Index was developed for a study on the relationship between male managers' sex role stereotypes and their perceptions of requisite management characteristics. It has also been used to assess female managers.

DISILLUSIONMENT INDEX

Veiga, J. F., & Yanoygas, J. N. What women in mangement want: The ideal vs. the real. *Academy of Management Journal*, 1976, *19*(1).

The Disillusionment Index was derived by using a shortened version of the Mahoney, Jerdee, Carroll Management Activities Survey (MAS). The MAS was designed to gather information on management activities of the respondents. The shortened version includes 35 managerial activities in five areas--planning, organizing, staffing, directing or controlling. In the study cited in the heading women were asked to complete the short MAS for their activities in both *present* and *ideal* positions. The differences were utilized as the basis for the development of a measure of disillusionment which was labeled the Disillusionment Index.

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE (LBDQ)

Stogdill, R. M. *Handbook of leadership*. New York: The Free Press, 1974.

The LBDQ was developed originally by Hemphill and others as a part of the Ohio State Leadership Studies (organized in 1945 by C. L. Shartle). The LBDQ was used in the first attempt to study leader behavior as opposed to leader traits. Several revised forms and variations of the LBDQ have been developed since the original was devised. The LBDQ - Form XII incorporates a multi-factor approach rather than a two-factor approach; the Ideal LBDQ measures expectations of what a leader ought to do, and the Leadership Opinion Questionnaire measures a variable referred to as production emphasis.

MINER SENTENCE COMPLETION SCALE

Miner, J. B. Motivation to manage among women: Studies of college students. Journal of Vocational Behavior, 1974, 5, 197-208.

The Miner Sentence Completion Scale (MSCS) has been used in a number of studies since 1964 to measure motivation to manage in various populations belonging to highly structured bureaucratic organizations. The MSCS is a projective measure containing 40 items, 35 of which are scored. Each sentence completion is scored as positive, negative, or neutral, in accordance with guidelines and examples from the Scoring Guide for the Miner Sentence Completion Scale (Miner, 1964). The instrument has been used in numerous studies from 1964 through 1974.

SUPERVISE ABILITY SCALE

Elsass, N. S., & Sweney, A. B. Test Systems, Inc., P. O. Box 18432, Wichita, Kansas 67218. The instrument is described in R. S. Andrulis. Adult assessment: A source book of tests and measures of human behavior. Springfield: Charles C. Thomas, Publisher, 1977.

The Supervise Ability Scale (SAS) is an inventory designed to assess management roles which an individual perceives to be appropriate and important. The instrument consists of 30 forced choice items, in which the individual rates the appropriateness of responses to situations. Scores are obtained on authoritarianism, equalitarianism, and permissiveness. Normative data are based on 157 military personnel, 115 business personnel, and 147 other adults.

SUPERVISORY BEHAVIOR DESCRIPTION QUESTIONNAIRE

Szilyagi, A. D., & Keller, R. T. A comparative investigation of the Supervisory Behavior Description Questionnaire (SBDQ) and the revised Leader Behavior Description Questionnaire (LBDQ - Form XII). Academy of Management Journal, December 1976, 19(4), 642-49.

The Supervisory Behavior Description Questionnaire (SBDQ) is one of the most frequently used of the Ohio State leadership scales. It was designed to measure the subordinates' perceptions of his or her leader's behavior. It is a 48-item scale which taps such variables as leader initiating structure and leader consideration. The SBDQ has been used in many studies since it was developed in 1957.

WOMEN IN LEADERSHIP OF ALTERNATIVE SCHOOLS QUESTIONNAIRE

Pruitt, G. Women in leadership of alternative schools. Unpublished doctoral dissertation, University of Massachusetts, 1976.

The instrument was designed to gather information on the characteristics of women directors of alternative schools, to determine their previous experience in education, and to measure some of the role factors of the position of alternative school principal. The questionnaire consists of three parts: Composite Definition of Leaders (personal and demographic data and aspiration level and needs--19 items); Status Position and Selection Process (11 items); Role Factors (expectations, evaluations, ambiguity index, role overload--10 items). The questionnaire was pilot tested, revised, and then distributed to a sample of male and female alternative school directors and women principals from traditional schools. Results of the study are presented in the author's doctoral dissertation (see reference above)

MATERIALS ASSESSMENT GUIDELINES

CAREER EDUCATION MATERIALS ANALYSIS

Women on Words & Images. EPIE career education S*E*T* volume 1: How to select and evaluate instructional materials. New York: EPIE Institute, 1975.

These analysis sheets were prepared by Women on Words & Images as part of an analysis of career education curriculum materials developed for the Educational Products Information Exchange (EPIE), Inc. They are included in an EPIE publication designed to help educators collect data on the extent to which career education instructional materials are sexist or racist. The guidelines are also reprinted in a Women on Words & Images publication, Help wanted: sexism in career education materials, Princeton, New Jersey, 1975.

CHECKLISTS FOR EVALUATING SEXISM IN READERS, SOCIAL STUDIES AND HISTORY MATERIALS, AND MATH BOOKS AND MATERIALS

Johnson, L. O. (Ed.) Nonsexist curricular materials for elementary schools. Old Westbury, New York: The Feminist Press, 1974, 7-11.

These checklists were developed as part of a packet of materials designed to assist teachers, parents, and school administrators to deal with sexism in the elementary schools. The instruments have not been formally field tested and are intended to serve as general guidelines or to stimulate production of program-specific materials. The Checklist for Evaluating Sexism in Readers consists of five multi-part items asking the number of times males and females are showm in certain activities and situations. The Checklists for Social Studies and History Materials are in similar format, but contain fewer items and in addition include open-ended questions and suggestions for bringing women into the social studies curriculum. The Checklist for Evaluating Math Books and Materials is a sample prose-style analysis of a math textbook.

EQUAL EDUCATION QUESTIONNAIRES

Lapid, G. S., Morrison, J., Lorsch, N., & Murray, P. Santa Barbara County Schools Equal Education Project. Unpublished report, 1977. (Available from Santa Barbara County Schools, P.O. Box 6307, Santa Barbara, California 93111).

The report contains five questionnaires which formed part of a district-wide survey designed to tap attitudes and opinions about the implementation of Title IX and sex fairness in the schools. The instruments were developed with the help of district and county Title IX officers and representatives of the County Council for Women. There are separate questionnaires for elementary teachers, secondary teachers, secondary physical education teachers, counselors, and school principals. The questionnaires were designed to be distributed by mail and take about 30 minutes to complete.

EXAMINING SEXIST ATTITUDES AND EXPECTATIONS OF TEACHERS

Strom, M. S., & Feldman, I. S. *Sex role stereotyping in the school: A handbook for teachers in the public schools of Brookline, Massachusetts*. Brookline: Public Schools of Brookline, 1975. (Available from Dr. Jacqueline Clement, Assistant Superintendent of Schools, Brookline Public Schools, Town Hall, Washington Street, Brookline, Massachusetts 02146.)

These guidelines were developed to help elementary and secondary school teachers analyze their own behavior and attitudes and the materials they use in the classroom. Suggestions for non-sexist activities also appear in the handbook. The guidelines are presented as a series of questions (not in checklist format) organized into five groups: Behavior, Academic Performance, Socialization, Extra-curricular Activities, and Classroom/School Organization.

GENERAL GUIDELINES FOR SEX-FAIR MEASUREMENT INSTRUMENTS

Farris, C. J. *Expanding adolescent role expectations: Information, activities, resources for vocational educators*. Ithaca, New York: Cornell University, 1977. (ED 147 544)

This is one of several instruments included in a sourcebook developed under the auspices of the Office of Occupational and Continuing Education, New York State Education Department, as a self-study guide for vocational educators. The instrument presents guidelines for rating assessment instruments in the following areas: Terms, Items, Forms, Norms, Manual and Student Report Form, Personality Inventories, Occupational and Basic Interest Inventories. The guidelines are available in a packet of instruments from Project MOVE, Community Service Education Department, Cornell University, and the sourcebook cited above is available from Media Services, College of Human Ecology, Cornell University. Other instruments available in this packet include (1) Rating Scale for Audio-Visual materials, and (2) Guidelines for Evaluating Vocational Textbooks.

GUIDELINES FOR ASSESSMENT OF SEX BIAS AND SEX FAIRNESS IN CAREER INTEREST INVENTORIES

National Institute of Education. *Guidelines for assessment of sex bias and sex fairness in career interest inventories*. Washington, D.C.: July 1974. (ED 098 314)

These guidelines were developed as part of the National Institute of Education's Career Education Program's study of sex bias and sex fairness in the various formal procedures for assessing educational and career interests. The guidelines are intended as standards by which counselors and other educators can evaluate sex fairness in career inventories, and they do not present standards for other essential aspects of these inventories. Section I of the instrument gives criteria by which to judge an inventory; Section II presents criteria for judging the technical information accompanying the inventory; and Section III states criteria for judging the adequacy of the interpretive information accompanying an inventory.

SEX-FAIR TREATMENT CHECKLIST

Blum, R. E., & Doyle, L. A qualitative incremental improvement to reduce sex role stereotyping on the career choices of junior high students. Final Project Performance Report, November 1977. (ED 151 793)

The checklist was developed to assist teachers and other educators to revise curriculum materials in a career development unit for eighth- and ninth-grade students. The instrument focuses on reducing sex-role stereotyping in career exploration experiences. The 26-item checklist was based on the McGraw Hill Book Company's Guidelines for the Fair Treatment of the Sexes and provides for rating General Characteristics, Language, Illustrations, and Teaching Aids in Materials.

SELF CONCEPT AND SELF-ESTEEM

HOW I SEE MYSELF

George Washington University, Social Research Group, OCD Retrieval Program, 1977. Dr. Ira J. Gordon, Director of Instruction for Development of Human Resources, College of Education, University of Florida, Gainesville, Florida 32601.

How I See Myself in a Sex And Race Role Checklist was designed for use in a career education project with rural, economically disadvantaged Black students in grades K-12. A companion instrument was also developed and used entitled "I Feel Me Feel," available from: Mr. Ernest T. Bentley, Jr., 2436 Pangborn Circle, Decator, Georgia 30303. A handbook describing the program has been developed.

QUANTIFIED SELF-CONCEPT INVENTORY

Ozehosky, R. J., Clark, E. T. Children's self-concept and kindergarten achievement. Journal of Psychology, 1970, 75, 185-192.

The Quantified Self-Concept Scale is a sentence completion instrument based on the developmental theories of A. Gesell & F. Ilg, and R. J. Havighurst. Children's responses to the 40 items are coded as reflecting positive or negative self-perceptions. This instrument was also used in Ozehosky and Clark's study of the relationship between childrens' self-concept and achievement in kindergarten.

U-SCALE

Ozehosky, R. J., & Clark, E. T. Children's self-concept and kindergarten achievement. Journal of Psychology, 1970, 75, 185-192.

The U-Scale is a nonverbal pictorial self-concept scale for use with kindergarten students. The instrument was developed for a study with kindergarteners in a New York State Public School district, to ascertain the relationship between children's self-concept and achievement in kindergarten. The instrument is presented to children as a game in which the child selects the real "you" from each of 50 pairs of bipolar drawings--one in a positive situation, the other negative.

CAREER ASPIRATIONS AND SEX ROLE ATTITUDES IN COLLEGE WOMEN

Parsons, J. E., Frieze, I. H., & Ruble, D. N. Intrapsychic factors influencing career aspirations in college women. Sex Roles, 1978, 4(3), 337-47.

Career Aspirations and Sex Role Attitudes in College Women (title supplied by abstractor) is a 300-item questionnaire. It was designed for a study of 169 undergraduate women at UCLA, to assess the relationship and relative importance of several factors for women's career aspirations. The items tap such variables as career aspirations, certainty of career plans, attitudes toward women's and men's roles in the family, and locus of control.

A CHAUVINISTIC INDEX FOR EDUCATORS

National Organization for Women. Report on sex bias in the public schools. (Rev. ed.). New York: Author, 1972.

This instrument is designed to identify differential treatment of boys and girls in the classroom and to clarify sex role perceptions of teachers and school administrators at the elementary and secondary levels. There are 10 yes/no questions and two essay questions, and directions for self-administration and self-scoring are provided. The instrument is included in the mimeographed booklet cited above, which may be purchased from the Education Committee of the New York Chapter of N.O.W.

FEMININE ROLE RATING INVENTORY

Hansen, J. C., & Putman, B. A. Feminine role concepts of young women. Sex Roles, 1978, 4(1), 127-30.

The Feminine Role Rating Inventory was designed in 1955 by Alexandra B. Fand for use in a study to distinguish between other-oriented and self-oriented women. The purpose of the study was to investigate the feminine role concepts and beliefs of young women who are high school seniors. The inventory consists of 34 items arranged in different order for each of the following forms of test: Form A, Ownself; Form B, Ideal Women; and Form C Mens' Concept of Women. The items are in Likert Scale format.

GROUP STEREOTYPES SCALE

Parish, T. S., & Bryant, W. T. Mapping Sex Groups Stereotypes of elementary and high school students. Sex Roles, 1978, 6, 135-140.

The Group Stereotypes Scale is a semantic differential scale. It was designed by Charles E. Osgood in 1952 to assess respondents' attitudes toward different groups of people. Groups are evaluated along eight bipolar adjectives on a 7-point scale. In the study by Parish and Bryant, elementary and high school students were asked to rate 'girls' and 'boys' on the scale. The study's purpose was to investigate the sex group stereotypes of students in these age groups.

IT SCALE FOR CHILDREN

Brown, D. G. Sex role preference in young children. Psychological Monographs, 1956, 70(14), 1-19.

The It Scale for Children (ITSC) was developed for a study of children's sex-role preference--their preferences for objects, activities, and characteristic of their own or the opposite sex. The ITSC consists of 36 picture cards portraying various objects, figures, and activities associated with masculine and feminine roles. The child is asked to specify which toys or activities "IT" (a non-sex-specified child-figure drawing) would prefer.

IT SCALE FOR CHILDREN: A MODIFICATION

Reed, M. R., & Asbjornsen, W. Experimental alteration of the IT Scale for the study of sex-role preference. Perceptual and Motor Skills, 1968, 26(1), 15-24.

The ITSC was described earlier in this section. The ITSC was modified by Reed and Asbjornsen by using only facial features. This and other studies have used modified versions of the ITSC in attempts to eliminate the problem of children's tendency to perceive "IT" as masculine. One study used a modified version of the scale to examine the sex-role preferences of black children (Dill, J. R., et al., Sex role preference in black preschool children using a modification of the IT Scale for Children. Perceptual and Motor Skills, 1975, 41, 823-828).

QUESTIONNAIRES ON SEX-TYPING AND POLITICIZATION

Iglitzin, L. B. Sex-typing and politicization in children's attitudes. Paper presented at the annual meeting of the American Political Science Association, Washington, D.C., 1972.

The Questionnaires on Sex-Typing and Politicization (title supplied by abstractor) were designed for use in a two-phase study concerning sex role stereotyping of fifth-graders and its effect on their political attitudes and beliefs. In Phase I of the study, children were asked to categorize jobs and personality traits according to sex, and to define their own career aspirations. In the follow-up study, students were administered a questionnaire concerning their views of their own future job and family roles, the degree of openness/stereotyping in their view of social roles for men and women, and their political information and awareness.

REVISED FAND INVENTORY

Gump, J. P. Comparative analysis of Black women's and white women's sex-role attitudes. Journal of Consulting and Clinical Psychology, 1975, 43(6), 858-63.

The Revised Fand Inventory is designed to measure two dimensions along which sex-role attitudes might vary--'other' vs. 'self' orientations. The instrument was used in a study comparing sex-role attitudes of Black and white college women. Subjects indicate aggreement or disagreement with statements describing women's rights, duties, roles, and nature.

SARBIN'S ADJECTIVE-CHECK LIST

McKee, J. P., & Sherriffs, A. C. Men's and women's beliefs, ideals, and self-concepts. American Journal of Sociology, 1959, 64, 356-63.

Sarbin's Adjective-Check List is a 200-word personality checklist. In the study by McKee and Sherriffs, the checklist was printed on each of four cards. Subjects (200 unmarried college students) were asked to fill out the checklist from a differenct perspective on each card--for their ideal self, their real self, their ideal opposite-sex person, and what they think others of their age level and sex would see as the ideal opposite-sex person. The aim of the study was to examine certain aspects of the attitudinal and belief systems of the subjects which might be expected to reflect the changes in, and disequilibrium between, the two sexes.

SEX ROLE IDEOLOGY QUESTIONNAIRE

Erickson, L. G., & Nordin, M. T. Sex role ideologies and career salience of college women: A preliminary report. Manhattan, Kansas: Kansas State University, 1974. (ED 095 449)

The Sex Role Ideology Questionnaire (title supplied by abstractor) was developed for a study at Kansas State University of 248 freshman women. The purpose of the study was to determine career aspirations levels and to learn whether traditional sex role ideologies are still predominant. The instrument contains sixty questions, 56 multiple choice and four open-ended items.

The Sex Role Ideology Questionnaire (title supplied by abstractor) was developed for a study at Kansas State University of 248 freshman women. The purpose of the study was to determine career aspirations levels and to learn whether traditional sex role ideologies are still predominant. The instrument contains sixty questions, 56 multiple choice and four open-ended items.

SIX-, EIGHT-, AND TEN-YEAR-OLD CHILDREN's VIEWS OF OCCUPATIONAL ROLES

Scheresky, R. Six-, eight-, and ten-year-old children's views of occupational roles (Doctoral dissertation, Michigan State University, 1975). University Microfilms International No. 76-5634.

This instrument was developed in 1975 to measure occupational role perceptions of elementary school children by showing them photographs of an occupational setting and asking them to indicate whether the work setting is appropriate for a man, a woman, or for both sexes. The instrument was used in an analysis of the effects of age, sex, and geographic location on children's occupational role perceptions. The authors found that the children in their sample perceived occupational roles traditionally, regardless of sex, age, or location. The instrument contains 15 questions (photographs) and is individually administered.

TRADITIONAL CULTURAL VALUES QUESTIONNAIRE

Montenegro, R. Educational implications of cultural values and attitudes of Mexican-American women. (Doctoral dissertation, Claremont Graduate School, 1973). Dissertation Abstracts International, 1973. (University Microfilms, 1973).

The instrument was developed to explore the extent to which changes in traditional values have been accepted by young Mexican-American women and the extent to which these values might inhibit or facilitate the entrance of Mexican-American women into institutions of higher education, vocational training programs, and the working world. During its development, the instrument was pilot tested with 28 Mexican-American high school girls. The questionnaire contains 71 items in true/false format. A 23-item demographic questionnaire is also included.

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OTHER INSTRUMENTS

THE ATTITUDE TOWARD SCHOOL QUESTIONNAIRE

Fink, A., & Kosecoff, J. Girls' and boys' changing attitudes toward school. Psychology of Women Quarterly, Fall 1977, 2(1).

The instrument is designed to measure attitudes toward school of children in grades K-2. The instrument was used in a study to determine whether boys and girls differ in attitudes toward school when they first begin, and whether the relationship between these attitudes changes with time. The instrument was developed in 1974 by the Center for the Study of Evaluation, UCLA. The items consist of 15 scored pictures presented one per page. Reading skills are not required.

EVALUATION SURVEY

Fine, J. R. ETS Tests in Microfiche, ETS Test Collection, Rosedale Road, Princeton, New Jersey 08540

The Evaluation Survey was developed in 1977 by a WEEA Project (Venture Beyond Stereotypes) in order to evaluate the effectiveness of a series of workshops on sexism in education. The author has data from over 200 elementary and secondary school teachers who participated in the workshops and completed the survey. The instrument contains 74 items tapping attitudes, behaviors, and knowledge concerning sexism.

FEMALE AND MALE PARTICIPATION IN THE PAID WORK FORCE AND IN VOCATIONAL EDUCATION PROGRAMS: WHAT ARE THE FACTS?

Title IX Equity Workshops Project. Council of Chief State School Officers, Suite 701/1201 10th Street N.W., Washington, D.C. 20036. Resource Center on Sex Roles in Education, National Foundation for the Improvement of Education, Washington, D.C.

The instrument is a 20-item multiple choice questionnaire designed to assess respondents' knowledge of females' and males' participation in the paid work force and in vocational education programs. The instrument was developed for use with materials for Title IX equity workshops.

QUESTIONNAIRE ON CONTINUING EDUCATION FOR WOMEN

Markus, H. Center for Continuing Education of Women, University of Michigan, Ann Arbor, Michigan. Continuing education for women: Factors influencing a return to school and the school experience. Materials developed for the Center for Continuing Education of Women, University of Michigan, Ann Arbor, Michigan, 1972.

The Questionnaire on Continuing Education for Women is designed to assess the motivation and decision making processes of women returning to school. The instrument was developed to evaluate the effectiveness of the Center for Continuing Education of Women in helping meet various educational needs of women, the problems and experiences of women returning to school, as well as some general attitudes and feelings of women. The instrument is designed as a mail questionnaire and contains items in rating scale, true/false (yes/no), and open-ended question format.

RESPONSE TO POWER MEASURE

Sweney, A. B. Test Systems, Inc., P.O. Box 18432, Wichita, Kansas 67218. The instrument is described in R. S. Andrulis. *Adult assessment: A source book of tests and measures of human development*. Springfield: Charles C. Thomas, Publishers, 1977.

The Response to Power Measure (RPM) is designed to measure a person's preference of superior or subordinate roles. It generates scores on six subscales: authoritarian, equalitarian, permissive, critic, ingratiator, and rebel. The RPM contains 96 items, in which the respondent indicates agreement, disagreement, or uncertainty. The instrument was normed on a population of 374 college students and 1,417 other adults.

TRAINING FOR EDUCATIONAL ADMINISTRATION

Kanter, R. M., & Wheatley, M. Goodmeasure, Inc., 6 Channing Place, Cambridge, Massachusetts 02138

This 50-item instrument was developed in 1978 to examine the value and effects of training programs for women in higher education administration. Results are intended to assist decision-makers design educational administration programs by providing a picture of the policies and practices in higher education administration and the experiences of women administrators. The items tap such areas as career history, job characteristics, and promotion prospects.

UCSB WOMEN'S CENTER NEEDS ASSESSMENT STUDY

Women's Center, University of California, Santa Barbara, Santa Barbara, California 93106

This questionnaire was designed as a survey of UCSB re-entry women to give information to the Women's Center so that they could accommodate the interests of this group. The instrument is intended for women students over the age of 25. The instrument contains 26 questions in varied format: multiple choice, checklist, open-ended questions. It taps motivation for re-entry, factors affecting adjustments to the university, current experience as a student, future plans, personal background, and use of campus resources.

PART IV

INDEXES

GLOSSARY

Ad hoc scale. A measurement instrument designed for the purpose of a single study. In contrast to a standardized scale, such a scale usually lacks such measures as reliability and validity or established norms.

Alpha coefficient. See Cronbach's alpha coefficient.

Analysis of variance. An analysis method to show total variation displayed by a set of observations, as measured by the sums of squares of deviations from the mean. It is a common statistical procedure used to detect significant differences between group means.

A priori. Refers to the development of items and scales on a rational or logical basis as distinguished from development on an empirical basis such as that provided by factor analysis.

Alternate forms reliability. See Parallel forms reliability.

Attitude. Attitude, opinion, and belief are used synonymously in this sourcebook. Attitudes are often considered to have an affective component, a cognitive component, and a behavioral component. The affective component refers to the individual's likes or dislikes with regard to the attitude object. The cognitive component refers to the individual's beliefs about the attitude object. The behavioral component refers to the individual's behavior with regard to the attitude object.

Attitude scales. Measures of affective states, positive or negative feelings about an attitude object, or opinions or beliefs about an attitude object.

Biserial correlation. See Correlation coefficient.

Chi square test. A statistical procedure used to detect significant differences between observed and expected frequency distributions.

Cluster analysis. Only one of a variety of statistical procedures involving the identification of groups of items in a test which are highly correlated or clustered. Like factor analysis, cluster analysis can be used as the basis for the development of an attitude scale comprising subscales of items which have been shown empirically to form clusters.

Cognitive tests. Measures of knowledge about particular topics.

Concurrent validity. The extent to which scores on a test are in agreement with some given criterion measure, such as scores on another test known to be valid. Concurrent validity, also called convergent validity, is an indication that a test measures what it is intended to measure.

Construct validity. The extent to which a test measures a psychological trait or construct. Construct validity exists if differences in behavior between high and low scorers on a test support all theoretical predictions.

Content validity. The extent to which an instrument adequately reflects the domain of content it is supposed to measure. It is best evidenced by a comparison of test content with a course of study or instructional program.

Convergent validity. See Concurrent validity.

Correlated factors. See Factor analysis.

Correlation coefficient. A statistic measuring the degree of linear relationship between two variates such as two distributions of scores. Different computational formulas are used, depending on whether both distributions are continuous (Pearson product-moment correlation), one is continuous and the other a dichotomy (point biserial correlation), one is continuous and the other is arbitrarily dichotomized (biserial correlation), both are dichotomous (tetrachoric correlation). Correlation coefficients range from .00 denoting a complete absence of relationship to +1.00 and to -1.00, indicating perfect positive or perfect negative correspondence, respectively.

Criterion validity. The extent to which scores on a test predict to a criterion, such as scores on another test (concurrent or convergent validity) or future behavior in other situations (predictive validity).

Criterion variable. The dependent variable in a study. See also Multiple regression analysis.

Cronbach's alpha coefficient. A correlational formula used to measure internal reliability or internal consistency of an attitude measure.

Demographic information. Descriptive facts about a population, such as age, occupation, and education.

Descriptive statistics. A term used to denote data of a descriptive kind, as contrasted with theoretical statistics which, although dealing with practical data, usually involve some process of inference in probability for their interpretation. Percentages, frequency distributions, means, and standard deviations are examples of data or methods of a descriptive kind.

Discriminant validity. The power of a measure or measurement item to distinguish between scores of individuals or groups in achievement, aptitude, interest, or some other characteristic. Where studies of discriminant validity are reported, the intent is often to demonstrate that the responses on the instrument do not correlate with social desirability.

Error band. See Standard error.

Evaluation guidelines. These are checklists or other techniques and procedures that can be used to detect a particular quality (sexism, for example), in curriculum materials or in the policies and practices of institutions.

Face validity. Non-technical evidence that a test appears to measure what it purports, inferred from an examination of the content or "face" of the instrument.

Factor analysis. Any of several methods of analyzing intercorrelations among a set of variables. Factor analysis contributes to the understanding of the underlying organization of aptitude, intelligence, and personality tests. For example, it attempts to account for interrelationships among items on an attitude scale in terms of a few underlying factors, and it shows how much the variation in the test arises from each of these factors. In this way it can be used to assess the internal structure of a test, even one that has been constructed on an a priori basis. The factors extracted by factor analysis may be *orthogonal* or *correlated*. *Orthogonal factors* are independent or uncorrelated with each other. *Correlated factors* show a relationship between scores on one factor and scores on other factors. The final stage of factor analysis involves a rotation of the factor axes in order to discover a structure. *Varimax rotation* is an analytic method of dealing with orthogonal factors. In attitude scale construction, the factors identified by factor analysis often become the scales into which the instrument is divided. Each factor or scale consists of items with high weightings or *factor loadings* on that factor. When factor analysis is used to assess the internal structure of an attitude scale developed on a rational basis, the factors extracted by factor analysis may be compared to the a priori subscales which comprise the instrument to assess degree of agreement.

Factor loadings. See Factor analysis.

Factual questionnaires. These instruments call for factual information, such as demographic data and past experience.

Forced-choice format. An item-response format in which an individual must choose between two or more alternatives generally equated for social desirability.

Guttman scale. An attitude measure in which the items are ordered so that persons who answer a given question favorably all have higher ranks on the scale than persons who answer the same question unfavorably. In other words, from the respondent's scale score, one can know which items he or she endorses.

Inferential statistics. Statistics used to make inferences about statistically significant differences between groups. Examples of inferential statistics are t test, chi square, analysis of variance, and correlation analysis.

Interjudge reliability. The extent to which different individuals using the same evaluation guidelines or categories make similar or consistent judgments. Interjudge reliability is sometimes assessed by computing correlations between the ratings made by pairs of judges. Interjudge reliability may also be measured by percentage of agreement between judges in ratings, rankings or allocation of items to categories.

Internal reliability. The degree of relationship among items of a test, or the extent to which an individual responds to different items ostensibly measuring the same thing in a comparable or consistent way. There are different correlational formulas which may be used to compute internal reliability. Among the most common are Cronbach's alpha, the Kuder-Richardson 20 and 21 formulas, and split-half reliability corrected by the Spearman Brown prophecy formula.

Ipsitive scores. Ipsitive scores are subscale scores which can be used in individual interpretation to identify relative strengths and weaknesses within an individual.

Item analysis. The process of evaluating test items in respect to certain characteristics such as difficulty and ability to discriminate.

Kuder-Richardson 20 and 21 formulas. Correlational formulas used to measure internal consistency or internal reliability of an attitude measure.

Likert scale. An attitude scale consisting of a series of declarative statements accompanied by rating scales. The score is computed by summing over individual items.

Matrix sampling. A method of sampling whereby different individuals are administered different subsets of tests, with the particular combination of tests administered to any sample member randomly determined. Sometimes, there are a great many tests to be administered, and it is not practical to expect any individual sample member to answer all of them. Matrix sampling solves this problem by sampling tests as well as population members.

Mean. A measure of central tendency, also called the arithmetic average, obtained by dividing the sum of a set of scores by their number.

Median. A measure of central tendency. It is the midpoint, above which and below which 50% of all cases are located.

Mode. A measure of central tendency. It is the most frequently occurring score in a distribution.

Multiple choice format. An item-response format in which the individual is asked to choose an answer from several alternatives. In some instances, the alternatives represent different degrees of agreement with a particular set of statements all ostensibly tapping the same attitude, and a score may be computed by summing over the numerical values associated with each response. Often, however, multiple choice alternatives are analyzed one at a time.

Multiple regression analysis. A general statistical technique through which the relationship between a dependent or criterion variable and a set of independent or predictor variables can be analyzed. It may also be described as multiple correlation. The information yielded by multiple regression analysis includes the relative weight of each predictor variable in determining the value of the dependent or criterion variable.

Multi-stage sampling. A sample which is selected by stages or clusters, the sampling units at each stage being chosen from the larger units chosen at the previous stage. Multi-stage sampling, also known as cluster sampling, begins with random selection of larger units such as local school districts followed by selection of smaller units such as schools within districts, classes within schools, pupils within classes who actually receive the measurement instrument.

Norms. Statistics that increase the meaning of scores by allowing comparison with different populations. Norms include means, standard deviations and percentile displays showing response patterns of different populations. Norms are based upon the actual performance of subjects in the test's standardization sample.

Oblique factor. A factor which is correlated with one or more other factors.

Observation schedules. A systematic code of behavioral categories used by one person, such as a teacher or parent, to evaluate the behavior of another.

Odd/even reliability. See Split-half reliability.

Open-ended questions. Items to which the individual responds in his or her own words. Instructions for scoring may or may not be provided.

Opinion inventories. Instruments that evaluate a project or program by measuring the positive or negative feelings or affective states of individuals towards it.

Orthogonal factors. See Factor analysis.

Parallel forms reliability. The equivalence or consistency of parallel forms, also called alternate forms reliability, measured by the correlation between different forms of the same test.

Pearson product-moment correlation. See Correlation coefficient.

Personality tests. Instruments that assess generalized attitudes of individuals that influence behavior in such a wide range of situations that they acquire the status of personality attributes. An example of such a personality attribute is self-esteem, the attitudes held by a person about his or her own self-worth that influence behavior.

Point biserial correlation. See Correlation coefficient.

Predictive validity. The extent to which test scores predict behavior in other situations. (See also Criterion validity.)

Projective measures. A method of personality study in which the subject gives free response to an ambiguous stimulus such as a photograph or an unfinished story. Responses are interpreted by designated scoring procedures.

Q Sort. A measurement procedure which involves sorting of items (which may be verbal statements or pictures) into categories based on extent of acceptance or rejection. The individual's attitude is inferred from the allocation of items to categories.

Random sample. A sample drawn in such a way that every population member has an equal chance of being included. (See also Stratified random sample.)

Range. A measure of variability in a distribution of scores; the difference between the highest and lowest scores obtained on a test.

Reliability. The extent to which a test consistently and dependably measures whatever it is designed to measure. In attitude measurement, reliability is based on the idea that the attitudes of individuals are consistent both internally and over time. (See also Parallel forms reliability, Split-half reliability, Test-retest reliability, and Kuder-Richardson 20 and 21 formulas.)

Sample. The portion of a population which is surveyed. The process used to select the part of the population is called sampling.

Semantic differential. An attitude scale in which an issue or object is evaluated in terms of a series of bipolar adjectives (e.g., intelligent-unintelligent), each separated by a horizontal scale. The score is generally computed by summing over the numerical values selected for each adjective pair.

Social desirability. The tendency of individuals to make socially acceptable responses on an attitude measure as distinguished from responses which reveal their true attitudes. On most attitude measures, scores can be distorted by social desirability.

Spearman-Brown prophecy formula. See Split-half reliability.

Split-half reliability. A procedure for assessing internal reliability which involves dividing a test into two parts and obtaining the correlation between them. One form of split-half reliability is odd/even reliability, which involves computing the correlation between the even and odd-numbered items on a test. Since split-half reliability is usually lower than would be obtained if the whole test were used, the Spearman-Brown prophecy formula is applied to estimate the reliability of a test twice as long, the total test.

Standard deviation. A measure of the variability in a distribution of scores. The more the scores cluster around the mean, the smaller the standard deviation.

Standard error. A statistic providing an estimate of the possible size of error present in an individual score (standard error of measurement) or in a group measure such as group mean or correlation coefficient (standard error). The error band is the range between the true score minus one standard error and the true score plus one standard error.

Statistical significance. A measure of the probability that the result is correctly calculated as better than 95%. In other words, the laws of statistics predict that if the study were to be done again, the results would be the same, or more precisely, the probability is better than 95% that the same results would be obtained.

Stratified random sample. The procedure in probability sampling of dividing a population into two or more parts or strata and taking a random sample of each strata. The advantage of stratified random sampling is that it allows for oversampling of some strata which would otherwise be underrepresented because they are so small, and undersampling of other strata which are very large. A weighting procedure is used to adjust for over- and undersampling and provides an estimate of true population values.

t test. A statistical procedure used to detect significant differences between two group means.

Test-retest reliability. Also known as stability or consistency over time, this refers to consistency of scores obtained by a group of individuals on two separate administrations of a test. It is measured by computing a correlation coefficient.

Tetrachoric correlation. See Correlation coefficient.

Thurstone scale. A scale consisting of a series of statements with which an individual agrees or disagrees. The scale has empirically determined weights, established by the opinions of a large group of judges toward each attitude statement. The numerical value of the respondent's attitude is the median of the scale values of the statements with which he or she agrees.

True/false format. A response format in which the individual agrees or disagrees with each item. A score is often computed by summing the statements with which the individual agrees.

Validity. The extent to which an instrument measures what it purports to measure. Determining whether an instrument measures what it is supposed to measure may involve examining the content of the instrument to establish content validity, correlating scores on the instrument with scores on other tests to establish convergent and discriminant validity, predicting behavior in other situations to establish predictive validity, or testing hypotheses developed from a theoretical model to establish construct validity.

Varimax rotation. See Factor analysis.

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	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students (K-6)	Middle School Students (6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students (9-12)	Teachers/Administrators
I. Attitude Toward Mathematics											
Dutton's Attitude Scale			X		X	X					
Fennema-Sherman Mathematics Attitude Scales			X			X				X	
General Attitudes toward Mathematics						X				X	
Kulm Mathematics Self-Concept Test			X								
Mathematics Anxiety Rating Scale	X		X			X				X	
Mathematics Attitude Inventory						X				X	
Mathematics Attitude Scale			X		X	X				X	
Mathematics Attribution Scale										X	
Mathematics Student Surveys, Questionnaires, Opinionnaires and Interviews			X		X	X				X	
Tocco Perceived Parental Attitudes						X					
Women in Mathematics Attitude Scale						X				X	
II. Awareness of Sexism and Racism											
Awareness of Stereotyping: Modules and Tests for Elementary Teachers		X					X				X
Chasen Diagnostic Sex Role Bias Scale	X			X							X
Checklist for Sex Fair Teaching Behaviors			X	X						X	X
Children's Perceptions of Sex Stereotyping in Elementary School					X						
Classroom Observation Questionnaire		X					X				X
Cultural Patterns in the Classroom (Patrones Culturales en el Salon de Clases)		X					X				X

INSTRUMENT MATRIX

	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students(K-6)	Middle School Students(6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students(9-12)	Teachers/ Administrators
II. Awareness of Sexism and Racism (continued)											
Evaluation Guidelines for Multicultural/Multiracial Education				X						X	X
Guidelines for Self-Observation of Teacher Behavior											X
Informal Teacher Sexist Attitude Survey											X
Katz-Zalk Projective Prejudice Test					X		X				
Questionnaire on Parent and Educator Knowledge of and Attitudes Toward Sexism and the Law	X										X
School Object Sex-Typing Index for Preschoolers								X			
Sex Role Concepts of Elementary School Children & Adults	X				X						
Situational Attitude Scale	X		X				X				
SRA Opinion Survey for Women	X										
Student Checklist										X	
Teacher Awareness of Sexism and Racism Questionnaire					X	X		X		X	X
Vance-Richards Verbal Fluency Test and Freiden Power Questionnaire											X
Werner Sexist Attitude Scale	X										
III. Career Awareness, Choice, Motivation, Interest											
Achievement Orientation Attitude Scale II										X	
Assessment of Career Development						X				X	
Awareness of Occupational Experience Scale II										X	
California Occupational Preference System					X	X				X	

INSTRUMENT MATRIX

III. Career Awareness, Choice, Motivation, Interest (continued)	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students (K-6)	Middle School Students (6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students (9-12)	Teachers/Administrators
Career Aspiration Scale			X	X							X
Career Commitment Inventory						X				X	
Career Development Inventory - Adult Form	X										
Career Education Needs Assessment					X	X				X	X
Career Planning Survey										X	
Career Questionnaire and Job Preference List						X					
Career Role Identification Inventory					X						
Children's Sex Stereotyping of Occupations					X						
Engineering Students Questionnaire			X								
Equal Vocational Education - Pre- and Post-tests for Students										X	
The Harrington/O'Shea System for Career Decision Making	X	X	X			X	X			X	
Interamerican Inventory of Interests (Inventario de Intereses)	X	X	X				X			X	
Kuder Occupational Interests Survey	X		X							X	
Minnesota Importance Questionnaire	X		X							X	
Occupational Atypicality Inventory						X				X	
Occu-Sort						X				X	
Ohio Vocational Interest Survey			X							X	
Planning Career Goals										X	
Profile of Occupational Interests									X	X	
Revised North-Hatt Scale							X		X	X	

INSTRUMENT MATRIX (continued)

INSTRUMENT MATRIX

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III. Career Awareness, Choice, Motivation, Interest (continued)											
Strong-Campbell Interest Inventory	X		X							X	
Survey of Women's Attitudes about Careers	X										
Survey on Planning Your Future									X	X	
Teachers' Attitudes Toward Male and Female Students											X
Vocational Decision Scale	X		X							X	
Vocational Interest, Experience, and Skill Assessment						X				X	
Women in Science Questionnaire			X								
Women in Veterinary Careers Questionnaire			X								
IV. Institutional Sexism											
Athletic-Physical Education Climate Assessment Instrument											X
Checking Your Balance: Guidelines for Assessing Sexism in School and Classroom Practices				X							X
Checklists on Staffing, Analyzing a School Library, and Analyzing an Elementary Reader											X
Complying with Title IX: Implementing Institutional Self-Evaluation				X							X
Idaho Sex Equity Survey Instruments				X							X
Title IX Implementation Assessment Instrument											X
Vocational Education Equity Study Counselor/ Instructor Interview Questionnaire				X							X

INSTRUMENT MATRIX

	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students (K-6)	Middle School Students (6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students (9-12)	Teachers/ Administrators
IV. Institutional Sexism (continued)											
Vocational Education Equity Study Interview of Local Agency Personnel											X
Vocational Education Equity Study Interviews of Directors and State Agency Personnel											X
Vocational Education Equity Study Student Interview and Attitude Questionnaire			X							X	
V. Management and Leadership Characteristics and Skills											
Descriptive Index	X										
Disillusionment Index	X										
Leader Behavior Description Questionnaire	X										
Leadership and Self-Development Scale	X		X								
Miner Sentence Completion Scale	X										
SRA Opinion Survey for Men and Women	X										
Supervise Ability Scale	X										
Supervisory Behavior Description Questionnaire	X										
Vocational Education Administration	X										X
Women as Managers Scale	X		X								
Women in Leadership of Alternative Schools Questionnaire											X
VI. Materials Assessment Guidelines											
Career Education Materials Analysis											X

INSTRUMENT MATRIX

	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students (K-6)	Middle School Students (6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students (9-12)	Teachers/ Administrators
VI. Materials Assessment Guidelines (continued)											
Checklist for Evaluating Materials											X
Checklist for Sex-Fair Life/Career Planning Materials				X							X
Checklists for Evaluating Sexism in Readers, Social Studies and History Materials, and Math Books and Materials	X										X
Checklists on Sexism and Racism				X							X
Content Analysis of Sexism in Texts in Teacher Education											X
Criteria for the Evaluation of Instructional Materials											X
Equal Education Questionnaires				X							X
Examining Sexist Attitudes and Expectations of Teachers											X
General Guidelines for Sex-Fair Measurement Instruments				X							X
Guidelines for Assessment of Sex Bias and Sex Fairness in Career Interest Inventories											X
Sex-Fair Treatment Checklist											X
Values Checklist	X										X
VII. Self Concept and Self-Esteem											
Barber Scales of Self-Regard: Preschool								X			
Bem Sex Role Inventory	X		X								

INSTRUMENT MATRIX

	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students(K-6)	Middle School Students(6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students(9-12)	Teachers/Administrators
VII. Self Concept and Self-Esteem (continued)											
Coopersmith Behavior Rating Form and Self-Esteem Behaviors					X	X					
Coopersmith Self-Esteem Inventory	X		X		X	X				X	
Denmark Self-Concept Test					X		X				
How I See Myself					X	X	X		X	X	
Lundgren and Schwab Self-Esteem Questionnaire			X								
Martinek-Zaichkowsky Self-Concept Scale		X			X	X	X				
Myself Checklist (Cuestionario Para Evaluarme a Mi Mismo)		X			X	X	X				
Personal Attributes Questionnaires	X		X							X	
Piers-Harris Children's Self-Concept Scale					X	X				X	
Primary Self-Concept Inventory		X			X		X				
Quantified Self-Concept Inventory					X						
QUESTS, A Life-Choice Inventory			X							X	
Rosenberg Self-Esteem Scale	X		X			X				X	
The Self-Concept and Motivation Inventory					X	X		X		X	
Self-Esteem Questionnaire	X		X		X	X				X	
The Tennessee Self-Concept Scale	X		X			X				X	
U-Scale					X			X			
Young Children's Self-Concept Scale					X						
VIII. Sex Role Perception											
Attitude Toward Sex Role Differentiation in Physical Education Attitude Inventory			X								X

INSTRUMENT MATRIX

VIII. Sex Role Perception (continued)	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students(K-6)	Middle School Students(6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students(9-12)	Teachers/ Administrators
Attitudes Toward Feminist Issues Scale	X										
Attitudes Toward Increased Participation by Women Questionnaire					X	X				X	
Attitudes Toward Sex Role Differentiation in Education											X
Attitudes Toward Sex Roles Scale	X	X	X				X			X	
Attitudes Toward the Dual Role of the Professional Woman	X										
Attitudes Toward Women Scale	X		X							X	
Attitudes Toward Women Survey	X		X	X							
The Beliefs about Equal Rights Scale	X										
Career Aspirations and Sex Role Attitudes in College Women			X								
A Chauvinistic Index for Educators											X
Children's Sex Role Perception (Doll-Choice Measure)								X			
Children's Sex Stereotypes of Adult Occupations					X						
The Fem Scale	X		X								
Feminine Role Rating Inventory										X	
Feminism Scale			X								X
Group Stereotypes Scale					X					X	
Hemmons Attitude Questionnaire	X										
It Scale for Children					X						

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VIII. Sex Role Perception (continued)	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students (K-6)	Middle School Students (6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students (9-12)	Teachers/Administrators
It Scale for Children: A Modification							X	X			
Job Judgments Questionnaire			X								
Kammeyer's Feminine Role Behavior Scale	X		X								
Lifestyles for Women Attitude Scale			X								
Lockheed-Harris Sex Role, Cross-Sex Interaction and Female Leadership Survey					X						
Luetgert Survey of Attitudes toward Sex Roles	X										
Maferr Inventories of Masculine and Feminine Values	X		X							X	
Peplau/Rubin Sex Role Traditionalism Scale	X										
Personality Research Form	X		X							X	
Questionnaire Eradicating Sexism in Vocational Education			X								X
Questionnaire on the Occupational Status of Women				X							X
Questionnaires on Sex-Typing and Politicization					X						
Revised Fand Inventory			X				X				
Sarbin's Adjective-Check List	X		X								
Scale for the Measurement of Attitudes Toward the Social, Educational, and Economic Roles of Women	X									X	X
Sex Role Attitude Items	X										
Sex Role Attitude Scale	X		X		X	X				X	
Sex Role Identity Scale						X				X	
Sex Role Ideology and Family Orientation Scale										X	
Sex Role Ideology Questionnaire			X								

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VII.	Sex Role Perception (continued)											
	Sex Role Learning Index								X			
	Sex Role Perceptions Interview					X						
	Sex Role Preference Questionnaire						X				X	
	Sex Role Rigidity Scale (Spanish Translation)	X	X	X				X				X
	Sex Role Stereotype Questionnaire	X										
	Sex Role Survey	X		X								
	Sex Role Traditionalism Scale			X								
	Sex Stereotype Measure		X			X		X				
	Six-, Eight-, and Ten-Year-Old Children's Views of Occupational Roles					X						
	Traditional Cultural Values Questionnaire	X	X					X				
	Traditional Sex-Determined Role Standards Items			X								
	Tredyffrin/Easttown Sex Fairness Survey										X	X
	Untying the Knot of Sexism-Self Evaluation Form											X
	Wellesley Role Orientation Scale			X								
	The "Who Should" Test					X						
	Women's Liberation Scale	X										
	Women's Studies Program Attitude Questionnaire						X					

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IX. Other Instruments	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students(K-6)	Middle School Students(6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students(9-12)	Teachers/ Administrators
The Attitude Toward School Questionnaire					X						
Career Development Inventory, Form I, Form III						X				X	
Classroom Environment Scale						X				X	X
Cohen's Fear of Success Questionnaire										X	
College Student Questionnaires			X								
Counseling Services Assessment Blank			X								
Evaluation Survey											X
Fagot Observation Scale - Teacher Behavior											X
Fagot - Patterson Observation Schedules								X			
Fear of Success Scale	X		X								
Female and Male Participation in the Paid Work Force and in Vocational Education Programs: What are the Facts?										X	X
Follow-Up Questionnaire on the Seminar/Workshop on Women in the World of Work	X			X							X
Fundamental Interpersonal Relations Orientation-Behavior	X				X					X	
Jesness Behavior Checklist	X									X	
Mehrabian's Achievement Motivation Scales	X									X	
Ory Achievement Motivation Scale			X							X	
Pappo Fear of Success Questionnaire			X								
Quality of Life Dimensions	X										
Questionnaire on Continuing Education for Women	X										
A Quick Quiz on Title IX				X							X

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IX. Other Instruments (continued)	Adults/Employees Parents	Bilingual/Bicultural Populations	College/University Students	Counselors	Elementary School Students(K-6)	Middle School Students(6-9)	Minority Populations	Preschool Students	Rural Populations	Secondary School Students(9-12)	Teachers/Administrators
Response to Power Measure	X		X								
Rokeach Value Survey	X	X	X		X	X	X			X	
Sex Role Stereotyping and Educational Equity in Physical Education											X
Sixteen Personality Factor Questionnaire	X									X	
Spatial Experience Questionnaire			X								
STS Youth Inventory		X				X	X			X	
Student Attitudes Toward Women's Studies Questionnaire			X								
Title IX / Women and Careers Inventory				X					X		X
Training for Educational Administration											X
UCSB Women's Center Needs Assessment Study	X										
Work Atmosphere Questionnaire	X										
Work Environment Preference Schedule	X		X							X	
Work Environment Scale	X										
Work Force Quiz										X	
Work Values Inventory	X		X			X				X	
Youth Group Survey									X	X	

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